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ABSTRACT

This booklet produced by the State of Indiana introduces elementary teachers to economic concepts appropriate to the elementary curriculum and explains how to use mini-economy activities to teach these concepts. Chapter 1 describes how the mini-economy works, while chapter 2 introduces basic economic vocabulary and discusses market economy. Ideas for mini-economy activities are provided in chapter 3. These activities include student-operated stores, auctions, businesses, and banks. Other suggestions for the mini-economy include providing for investments in real estate, stocks, and commodities. Chapter 3 also includes examples of how to use these economic concepts across the curriculum. The appendices contain: (1) student worksheets and answers; (2) economic education curriculum materials for teaching specific concepts; (3) suggestions for dealing with potential problems to make the mini-economy more effective; and (4) Indiana proficiency guidelines in economics. Photographs and a 26-item annotated bibliography of printed and audiovisual curriculum materials are included. (DJC)

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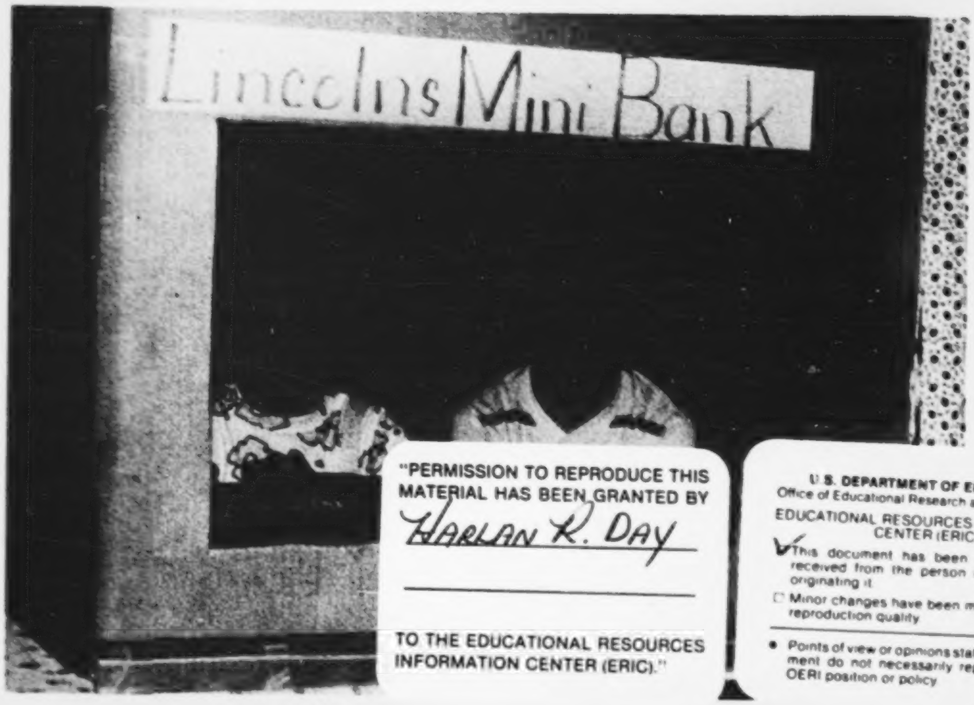
TEACHING ECONOMICS IN THE MINI-ECONOMY



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Indiana Department of Education
H. Dean Evans, Superintendent

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TEACHING ECONOMICS IN THE MINI-ECONOMY

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ECONOMY

Indiana Department of Education
H. Dean Evans, Superintendent

February 1988

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Introduction

Educators have recognized that schooling is sometimes ineffective because frequently students do not see how the knowledge and skills they have learned apply to real life situations. Marilyn Kourilsky, developer of the *Mini-Society* economics program, writes:

> It is sadly clear that thirteen years of schooling have left a vast number of people unprepared to participate purposefully and knowledgeably in the basic roles they play in life . . . Students may "know" about life in that they have digested certain concepts and facts, but they are lost when it comes to apply these facts to their own situation: in a sense they are functionally illiterate . . .I am convinced that the root of this functional illiteracy is the lack of opportunity to practice applying the knowledge that schooling attempts to impart. (Kourilsky, 1983, p. 4)

The mini-economy form of instruction is a powerful tool for teaching economics because it *does* relate economic concepts to actual situations encountered by students. This link between the economic concepts and the mini-economy activities results in a motivating economics curriculum that is highly relevant, and therefore, more highly effective.

The purpose of this booklet is to better equip teachers with the knowledge and skills necessary to use the mini-economy form of instruction to teach economics to elementary students.

The booklet does not provide a comprehensive study of economics, and is not a substitute for formal instruction in economics. Nevertheless, it does introduce teachers to economic concepts appropriate to the elementary curriculum, and also explains how to use mini-economy activities and other classroom situations to teach these concepts.

To give teachers guidance regarding scope and sequence, the specific elementary economics proficiencies and proficiency indicators that are part of the proposed Indiana Social Studies Proficiency Guide have been included as an appendix. Teachers will find that mini-economy activities can be used to teach most of these proficiencies.

Teaching Economics in the Mini-Economy

Indiana Department of Education
H. Dean Evans
Superintendent of Public Instruction

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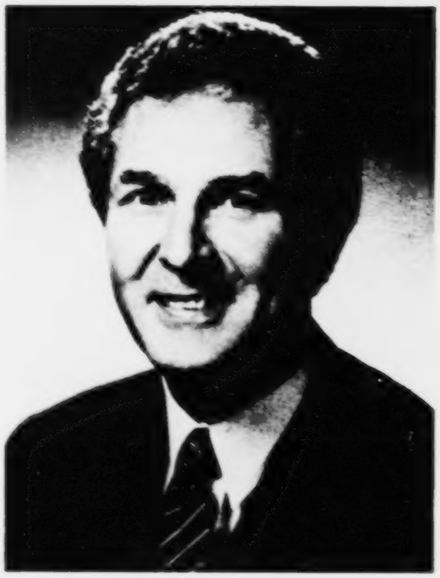
A Message from H. Dean Evans Superintendent of Public Instruction

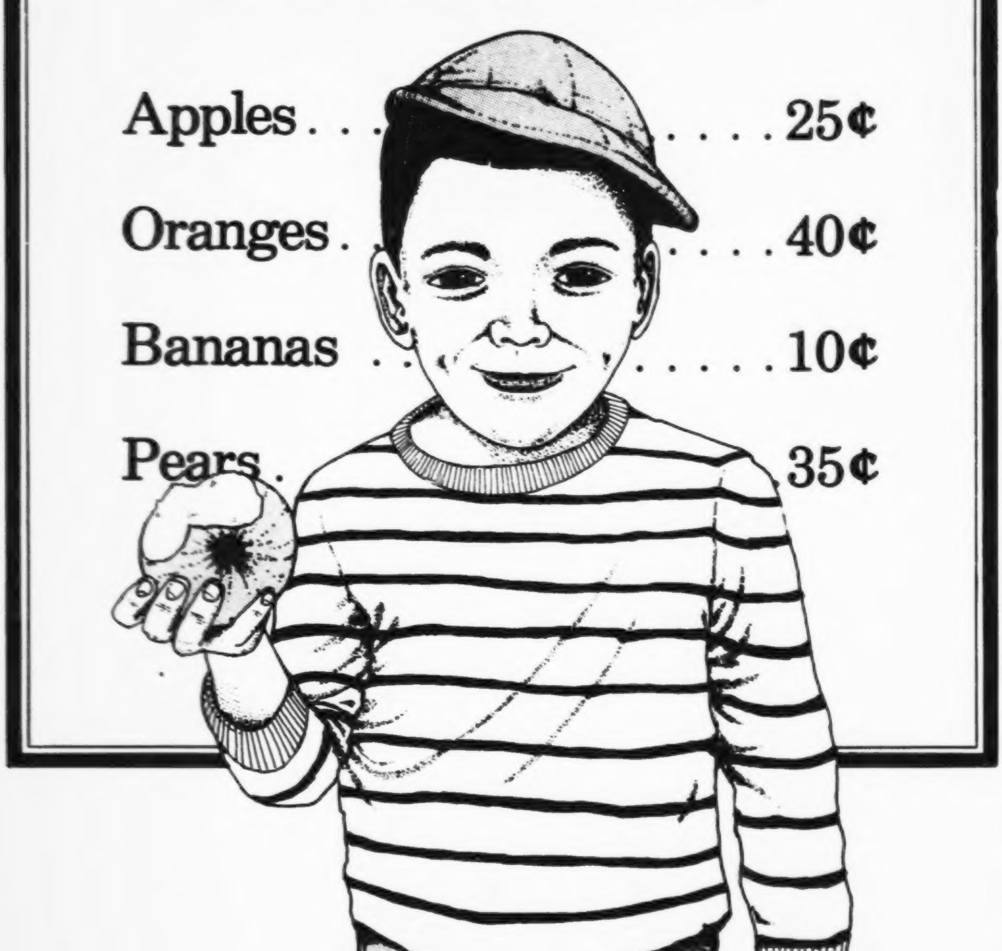
Throughout Indiana there is growing interest in the mini-economy form of instruction. Elementary teachers recognize its value in teaching basic economic concepts and life skills, in aiding classroom management, and in providing for a more integrated curriculum.

Using the mini-economy to teach basic economic concepts is especially challenging. The purpose of this booklet is to introduce elementary teachers to basic economic concepts, and to show teachers how to teach these concepts using the mini-economy form of instruction. If this purpose is realized, it will be an important step in helping Indiana students attain the economic literacy necessary for them to be effective citizens.



H. Dean Evans

Open for Business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Chapter 1

The Mini-Economy

Decisions, Decisions

John was not sure what to do. As he trudged home from school that afternoon, his mind analyzed the many factors that would affect his decision. He knew he could produce better bookmarks than those Susan and Maria were making. After all, he had access to better productive resources. His older brother had a computer program that produced unique designs, and his friend, Amy, was the best artist in the class. He could hire her to create custom designed bookmarks. Also, the rent he would have to pay Andy for a table and chairs to set up his business was reasonable. True, computer designing and customizing his bookmarks could mean rather high production costs. He would have to charge a higher price than the other bookmark business, but he was confident his classmates would pay that much.

No, his main concern was Eddie. Eddie wanted him to be a partner in a desk cleaning service. Eddie had conducted a market survey and was convinced that there was enough demand for each of the boys to make $25 a week operating the business. If that were true, the opportunity cost of operating his own bookmark business might be too great. It just wouldn't be worth it.

He would have to make a decision by tomorrow. Eddie would not wait any longer. Maybe mom and dad would have some suggestions . . .

The dilemma facing John is not unusual for elementary students participating in a classroom mini-economy. In this unique form of instruction, students frequently encounter situations that provide the opportunity to relate economic terms and concepts to real classroom situations. The learning that takes place in such a dynamic and motivating environment can transcend the learning that takes place in more traditional educational settings.

Students at Corydon Elementary are hard at work at their Cookie Factory. These students specialize in rolling the cookie dough.

What Exactly Is A Mini-Economy?

The mini-economy is a form of economics instruction in which students participate in a classroom economy in order to simulate real world economic activity.

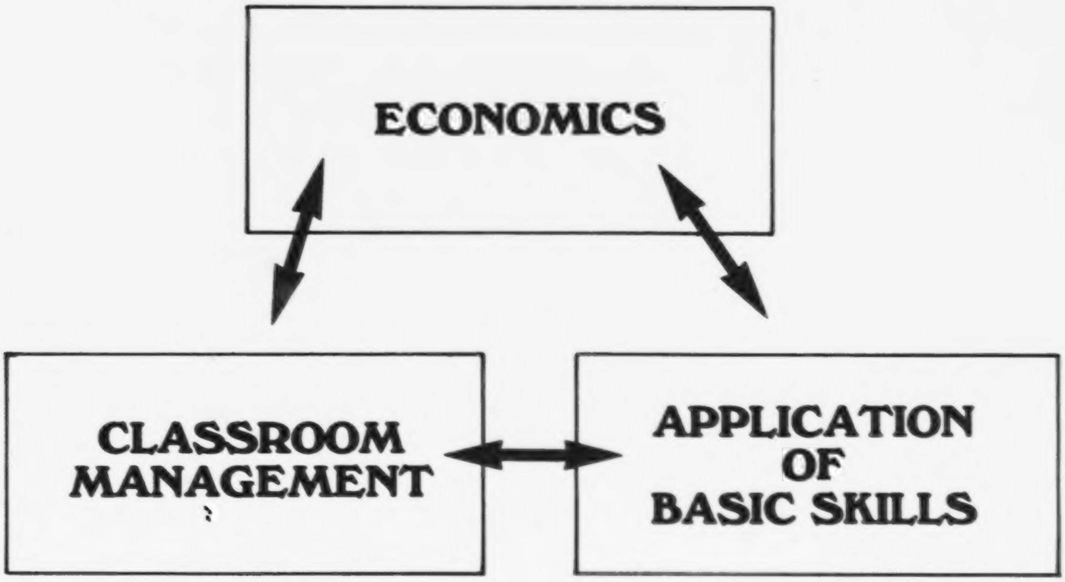
Students earn play money in a variety of ways, usually by performing jobs, running businesses, or meeting certain standards of behavior. Students typically spend their money at class stores or auctions, or at other businesses run by their classmates.

A more complex mini-economy may include banks, taxes, insurance companies, real estate transactions, government services, and investments. The mini-economy is, in effect, a miniature economy operating within the regular elementary classroom.[1]

Three Basic Elements

There are three basic elements common to most mini-economies. They are illustrated in Figure 1 and are described below.

Figure 1
Three Basic Elements
of a Mini-Economy



Classroom Management. Many teachers use the mini-economy as a classroom management tool. These mini-economies are sometimes described as **token economies.** Students are paid for various types of desired behavior, such as keeping desks tidy, getting work completed on time, walking quietly in the halls, or writing neatly. Some teachers also fine students to deter undesired behavior.

Although the research is not conclusive on the lasting effects of using extrinsic rewards and punishments in classroom management, many teachers who use this method in their mini-economies claim that it is effective. Most objections from educators rest on more philosophical grounds — students should not be paid for doing things that are required as classroom routine. Teachers who agree with this objection usually pay students for jobs only, and avoid payment for any behavior.

Another objection to using the mini-economy as a management tool is that behavior management techniques tend to dampen student initiative and creativity. Students learn to react to the behavioral constraints established by the teacher, but do not creatively develop their own constraints or their own economic system. Decision-making opportunities are reduced, and consequently, learning is stifled.[2]

Despite these objections, the classroom management element of the mini-economy remains very attractive to many teachers. Most incorporate some aspect of it into their mini-economies and most seem to be satisfied with the results.

Application of Basic Skills Learned in Other Subject Areas. The mini-economy appeals to teachers who are concerned about the lack of actual instructional time in an already crowded curriculum. These teachers have found that in a mini-economy students learn to apply basic skills acquired in various subject areas. These skills become more relevant to students, who begin to see a reason for mastering them.

For example, math skills can be applied easily to mini-economy activities. Students must keep banking records to figure investment gains or losses, compute taxes, record business transactions, and engage in day to day economic transactions.

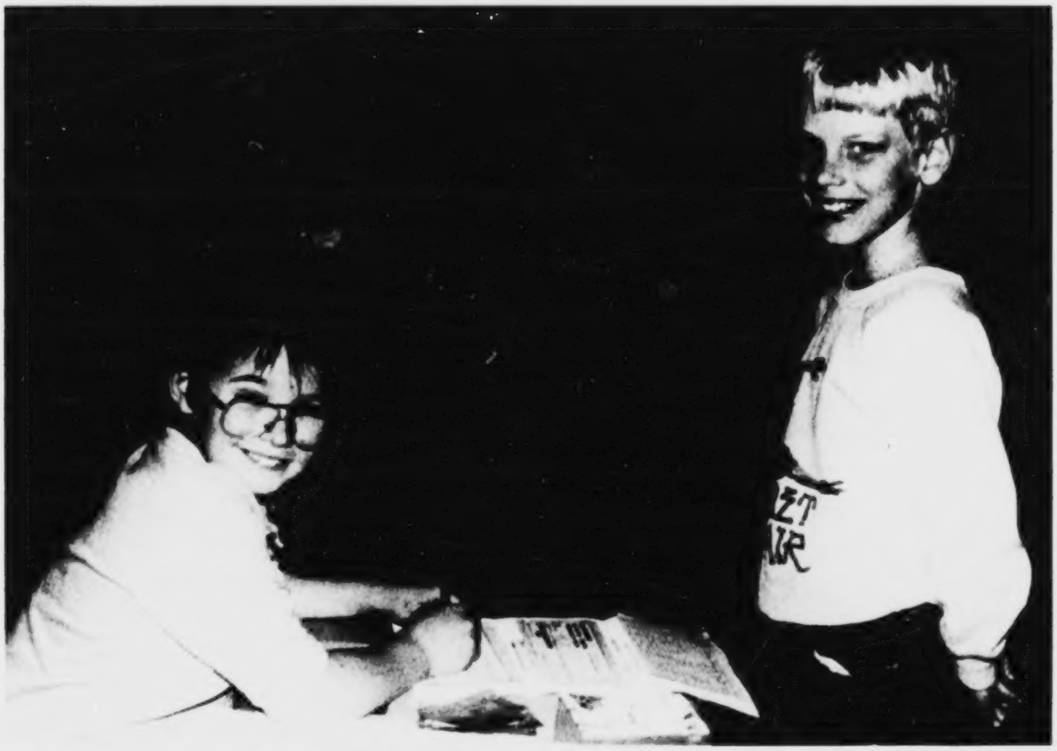
Language arts skills can also be integrated into mini-economy activities. Students fill out job applications, write advertisements, and compose thank-you notes to community people who provide their expertise to help mini-economy activities.

Mini-economy activities are also ideal for applying fine arts skills. Many items produced by classroom businesses, such as bookmarks, buttons, and greeting cards, make excellent art projects. Students also develop artistic skills by creating advertising signs and posters. Musical creativity is encouraged when students write advertising jingles or compose songs that describe their work efforts.

Some teachers also find the mini-economy very effective for applying computer skills. Their students use computers to keep bank records and business accounts, to design products to sell, and to aid in written correspondence with the community.

In summary, most teachers find the application of basic skills learned in other subject areas to be a very appealing and effective element of the mini-economy. By helping to integrate a sometimes fragmented curriculum, the mini-economy makes the currriculum more meaningful to students.

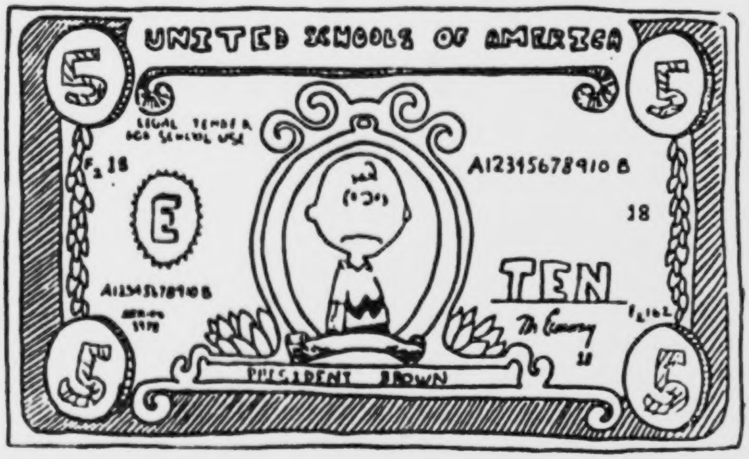
Economic Content. The mini-economy offers truly excellent opportunities to teach students basic economic concepts. This is because a skillful teacher can relate these concepts to classroom activities that students are actually experiencing. The students are not simply learning **about** economics. They are **experiencing** economics in classroom situations that are very important and real to them. The result is a curriculum that is more relevant, and therefore, more effective.



This banker in Karen Bontrager's class at Westfield Elementary has a satisfied customer.

Marilyn Kourilsky (1974, p. 2-3) cites two additional reasons why the mini-economy can be effective for teaching economics. The first is that the mini-economy is an **active** as opposed to a **passive** form of instruction. Any visit to a mini-economy classroom will confirm this fact. The classroom is usually a beehive of activity where students are engaged in a variety of economic enterprises.

The other reason identified by Kourilsky is that students in a mini-economy must constantly bear the consequences of economic decisions they have made. In the situation described above, John had to choose between two alternatives and had to live with the results of that choice. In this, as in many other situations, there was not necessarily a "right" choice. If John chose to produce bookmarks and the venture was a complete failure, he would still learn much from this experience.



A Caveat. There is an important caveat that must be made at this point, and which is, indeed, the main purpose of this booklet. **Merely participating in mini-economy activities will not ensure that students learn basic economic concepts.**

The mini-economy activities must be considered as **opportunities** to teach economics. It is the responsibility of the teacher to exploit these opportunities by bringing out the economic concepts hidden within them.

Consider the simple example of a class store. A skillful teacher can use the class store to illustrate many concepts, such as scarcity, opportunity cost, consumer decision-making, price as an allocation device, and supply and demand. Unfortunately, this does not always happen, and excellent learning opportunities are lost.

There are two basic reasons why economics learning may not occur:

Reason 1: Teachers do not have an adequate understanding of basic economic concepts.

Reason 2: Teachers may understand basic economic concepts, but need to learn how to use the mini-economy activities to teach the concepts.

Reason one can be explained partially by the limited amount of economics training provided in teacher education programs. A study of economic literacy in Indiana by Michael Watts (1985, p. 199-202) revealed that Indiana teachers, while trained as well as teachers in other states where similar data was available, had nevertheless received little training in economics. For example, only 53 percent of the elementary teachers in the study had ever taken a course in economics, and only six percent had ever completed a workshop in economics. Moreover, for 74 percent of these teachers who had taken a course or workshop, it had been over nine years since the training had been completed. Watts concluded:

> In general . . . training levels are not as high as some important early studies suggested would be required to implement effective economic education programs at the pre-college level (Watts, 1985, p. 202).

The second chapter in this booklet gives a brief overview of economics. It introduces concepts that a teacher could be expected to know and teach at the elementary and middle school level. The chapter is written in a nontechnical manner, and gives a general overview of the discipline and the economy as a whole. It should be helpful to teachers who have never taken any economics coursework and to teachers who wish to review economics concepts learned in earlier courses.

The reason there is a lack of economics instruction in the mini-economy by teachers who have economics training is primarily a problem of awareness. Teachers may know basic economic concepts, but are not aware of the many ways that the concepts can be taught using the mini-economy activities. Chapter 3 of this booklet addresses this issue by identifying various economic concepts that can be taught using each mini-economy activity. The chapter also explains how basic economics concepts can be taught in other typical classroom situations. The elementary economics proficiencies and proficiency indicators that are part of the proposed Indiana Social Studies Proficiency Guide have been included as an appendix. Teachers will find that mini-economy activities can be used to teach most of these proficiencies.

This student uses her special artistic skills to operate a face painting business in Nancy Mills' Muessel Elementary classroom in South Bend.

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[1] Mini-Economics are explained in much more detail in the Indiana Department of Education booklet, *The Mini-Economy: Integrating Economics Into The Elementary Curriculum.*

[2] See Kourlisky, Marilyn and Hirshliefer, "Mini-Society vs. Token Economy: An Experimental Comparison of the Effects on Learning and Autonomy of Socially Emergent and Imposed Behavior Modification," *The Journal of Educational Research,* 69: 376-381, July/August, 1976.

Figure 2

Three Important Things to Remember About Operating a Mini-Economy

1. EXPAND MINI-ECONOMY ACTIVITIES GRADUALLY.

DO NOT TRY TO DO EVERYTHING AT ONCE.

* * *

2. GIVE STUDENTS RESPONSIBILITY FOR HANDLING MANY MINI-ECONOMY DETAILS

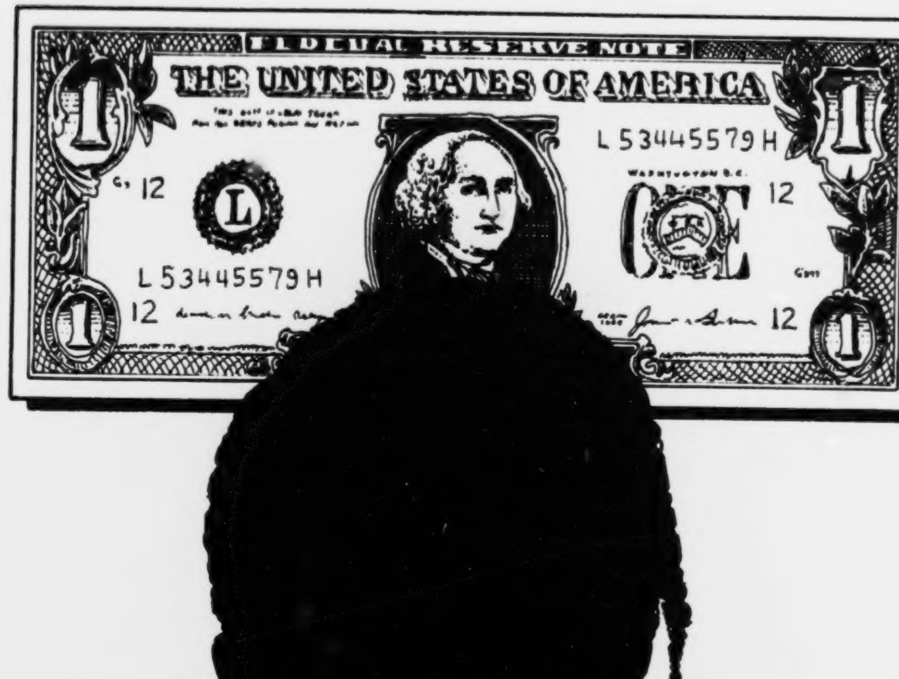
DO NOT DO WHAT YOUR STUDENTS CAN DO

* * *

3. USE THE MINI-ECONOMY TO TEACH BASIC ECONOMIC CONCEPTS.

DO NOT USE THE MINI-ECONOMY EXCLUSIVELY FOR CLASSROOM MANAGEMENT

* * *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Chapter 2

What Economics Is About

Scarcity, The Basic Economic Problem, and Economic Systems

Scarcity. Every society is endowed with resources which are used to provide the goods and services that enable it to survive and prosper. These resources, called **productive resources**, can be classified into three groups: land, labor, and capital. **Land** is a broad term referring to all natural resources such as coal, water, trees, and land itself. **Labor** is the human work effort, both physical and mental, expended in production. **Capital** refers to the man-made physical resources (such as buildings, tools, and equipment) and the human skills used in production.

Economics studies how productive resources are used to provide the **goods** and **services** that will satisfy human wants. Because productive resources are limited, the goods and services that can be produced from them are **limited**. In contrast, the goods and services individuals and societies want are virtually **unlimited**.

This tension between unlimited wants and the limited resources available for satisfying these wants is what economists refer to as **scarcity**.[1] Thus, stereos, hot dogs, education, lawn mowers, T.V. repair services, and bubble gum are all considered **scarce** because many individuals desire these items, but their availability is limited. They are **not** freely available to individuals in unlimited quantities.[2]

It is quite difficult to think of things that are not scarce. Some examples might include sand and water at the beach or the air you are breathing at this moment. But, even air is scarce to the scuba diver or astronaut, and certainly, clean air is scarce for the inhabitants of large cities. It is safe to conclude that most things in this world are scarce.

The paymaster is ready to pay wages to workers in Phyllis Herczeg's class at Roosevelt Elementary in Elkhart.

Scarcity is sometimes confusing to students because it does not correspond exactly to the common usage of the word. Are hot dogs and bubble gum really scarce? They are readily available to most students, who would more likely apply the term to diamonds or gold. A teacher can address this misunderstanding by offering a free pack of bubble gum to a class. It is a safe bet that more than one student will want it, and the point is proved — in economics, if individuals want more of an item than is freely available, that item is considered scarce.

The Basic Economic Problem. The existence of scarcity creates the **basic economic problem** faced by every society, rich or poor: How to make the best use of limited productive resources to safisfy human wants.

To solve this basic problem every society must answer three basic questions:

1. **What** goods and services to produce
2. **How** to produce the goods and services
3. **Who** will consume the goods and services

Economic Systems. Several types of **economic systems** exist to answer these three basic questions.

Traditional Economies: In this type of system, economic decisions are based on custom and historical precedent. For example, in tribal cultures or in cultures characterized by a caste system, such as India, people in particular social strata or positions usually perform the same type of work as their parents and grandparents, regardless of ability or potential.

Command (Centralized) Economies: In a **command economy**, governmental planning groups make the basic economic decisions. They determine such things as prices, the goods and services to be produced, and wages. The Soviet Union and Cuba are examples of command economies.

Market (Decentralized) Economies: In a decentralized **market or capitalist** system, economic decisions are guided by the changes in prices that occur as individual buyers and sellers interact daily in the market place. This **price system**, which is described in more detail later in this chapter, characterizes the economies of the United States, Japan, and Hong Kong.

Mixed Economies: There are no pure command or market economies. All economies exhibit characteristics of both systems, and so, to some extent are **mixed economies**. In the United States, the government makes many important economic decisions, even though the price system is still predominant.

The key point to remember is that every individual and every society must contend with the problem of scarcity. Every society, regardless of its economic or political system, must develop an economic system to determine how to use its scarce productive resources to answer the three basic economic questions of what to produce, how to produce, and for whom to produce.

Opportunity Cost: There Is No Free Lunch

Because of scarcity, any time a choice is made there are alternatives that are **not** chosen. More precisely, there is always one **next best** alternative that is not chosen. In economics, the value of the next best alternative not chosen is called the **opportunity cost.**

Both **producers** (those who provide goods and services) and **consumers** (those who use goods and services) incur opportunity costs when making decisions. The business person who uses productive resources to produce pianos cannot use those productive resources to produce pizzas. The consumer who purchases a new carpet will have to forgo saving the money or purchasing something else. **Because resources are limited, there will always be an opportunity cost incurred with every economic decision.**

A major goal of economics instruction is to teach students to recognize opportunity costs when making decisions. As consumers, students should realize that the "cost" of buying an item is not just its price; rather, it is the value of the best other item that now **cannot** be bought. For producers, the opportunity cost is the next most valuable good or service that is **not** produced as a result of the decision to produce something else.

Store
Crayola

Students shopping at the store in Karen Bontrager's class at Westfield Elementary learn that every consumer decision has an opportunity cost.

The concept of **time** is important for understanding opportunity cost. Since time is also scarce, the time spent doing one activity cannot be spent doing another. Thus, the real "cost" of watching television is not the time itself, but the most valuable **other** activity that could have been done during that time.

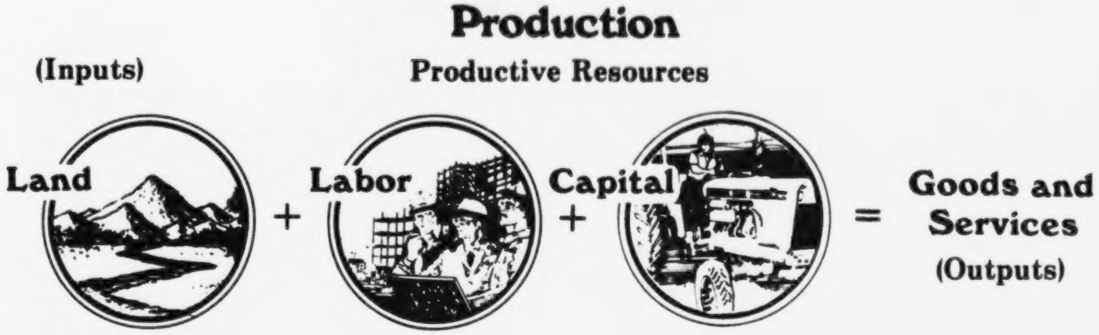
The inescapable conclusion to this discussion is that there is indeed, as the economists tell us, "no such thing as a free lunch." All resources are limited and have alternative uses. Every choice will result in foregone alternatives. Every choice has an opportunity cost.

Productivity: The Key to Minimizing the Effects of Scarcity

Production and Productivity: Economic activity is directed toward a distinct goal: minimizing the pervasive effects of scarcity. In doing so, individuals and societies almost instinctively pursue economic activities which enable them to satisfy the most important of their wants using the fewest resources possible. This has never been an easy task, and indeed, has been fraught with much toil and hardship. Any progress that has been made in minimizing the effects of scarcity has been largely due to the more efficient use of the productive resources in the production process.

Production is the process in which productive resources are used to create goods and services. It can be a relatively simple process, like John's bookmark business mentioned in Chapter 1; or it can be very complex, such as the production of an automobile. The basic elements of the production process are diagrammed in figure 4.

Figure 4:
The Production Process



Economists refer to the finished goods and services that are produced as **output**. The productive resources are the **inputs**. The important concept, **productivity**, measures the amount of output produced relative to the inputs used. It is expressed as a ratio.

$$\text{Productivity} = \frac{\text{Output}}{\text{Input}}$$

Since labor is a relatively easy input to measure and since it relates directly to wages and living standards, the term productivity commonly refers to **labor productivity** and is measured in terms of output per labor hour worked.

$$\text{Productivity} = \frac{\text{Output}}{\text{Labor hour}}$$

Thus, if John and his workers produce eight bookmarks in one hour, then eight/one or eight is the measure of their productivity. If they could produce 16 identical bookmarks in that same hour, this would be an **increase in productivity.**[3]

Solving the basic economic problem (how to make the best use of scarce productive resources to satisfy wants) is, in the long run, a question of increasing productivity. Societies that use their productive resources efficiently can offer higher standards of living to their members. Health standards improve, and life expectancy increases. Scarcity cannot be eliminated, but its effects can be reduced.

How to Increase Productivity. Economists have identified several ways to increase productivity and reduce the effects of scarcity.

Increased Amounts of Capital: Workers are more productive when they use tools, machines, and equipment. A farmer using a hoe can grow more than a farmer using just his hands. An adequate stock of capital available to workers is necessary for high levels of productivity.

Improvements in Technology: A farmer with the tractor can produce more than a farmer with a hoe. A better (technologically improved) stock of capital has probably been the greatest factor in increasing productivity.

Improvements in the Quality of Labor: Labor that is better trained and educated is more productive than unskilled labor. The increase in skills resulting from education and training is often referred to as **human capital.**

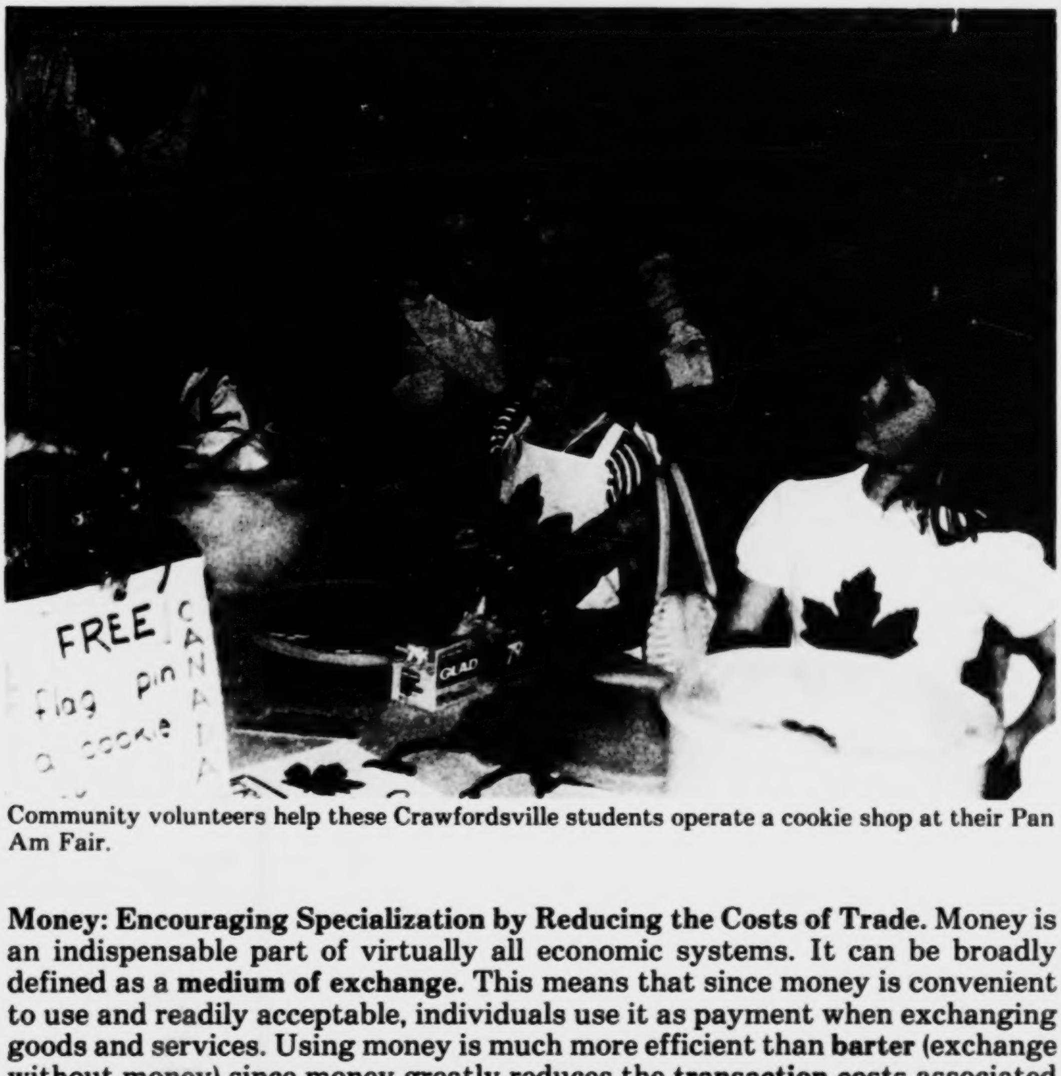
Increased Specialization and Exchange: Because individuals are endowed with different skills and interests and because the time and resources necessary to learn new skills are scarce, there is a strong tendency toward **specialization** in the production of goods and services. This leads invariably to an increase in productivity. A cobbler specializes in making shoes, while a farmer specializes in growing food. They can then **exchange** (trade) with each other to get the desired goods. By concentrating their talents and efforts in one area, they can produce more shoes and food than if each tried to produce both products.

Specialization also characterizes trade among nations. When nations focus production in areas where they have an efficiency advantage (**comparative advantage**) and then trade to obtain other desired goods, the result is more overall production.

Specialization also exists in specific production processes. For example, on an assembly line each worker performs a specific task. In a law office, secretaries manage the office and do clerical work, while lawyers provide legal expertise. The specialization of production processes increases the total amount of goods or services that can be produced.

The main point is this — at whatever level specialization occurs, it results in increased productivity.

Interdependence: The Result of Specialization. A major consequence of the increases in productivity caused by specialization and exchange is **interdependence.** As individuals and nations specialize and trade, they become dependent on each other to supply their basic wants. Few of us grow our own food; we rely on the farmer. The farmer, in turn, relies on other producers to provide clothing and farm machinery. The complex web of interdependence that develops from trade among individuals and among nations creates a strong incentive for social cooperation and peaceful coexistence.



Community volunteers help these Crawfordsville students operate a cookie shop at their Pan Am Fair.

Money: Encouraging Specialization by Reducing the Costs of Trade. Money is an indispensable part of virtually all economic systems. It can be broadly defined as a **medium of exchange**. This means that since money is convenient to use and readily acceptable, individuals use it as payment when exchanging goods and services. Using money is much more efficient than **barter** (exchange without money) since money greatly reduces the **transaction costs** associated with simple barter. For example, in a barter economy a producer of apples would have to devote valuable time and resources finding other producers who are selling what he desires and who are willing to trade for apples. Using money alleviates this problem. By greatly reducing the costs of trade, the use of money increases the size of the market for goods and services. This promotes less self-sufficiency and increased specialization, which, in turn, leads to greater productivity.

For money to be an effective medium of exchange, it must first be relatively **scarce**. Items that can be easily found or duplicated will not work. Ideally, money should also be durable, portable, and divisible. While various items such as shells, tobacco, and furs have been used as money, historically, gold and silver have been used the most. Today, these precious metals are no longer part of the money supply of the United States. Instead, the basic money supply, known as M1, consists primarily of **currency** (paper and non-precious coins) and **checking accounts**.

The Price System: How the Market Economy Directs Economic Activity

Because scarcity exists, all societies must determine how to make the best use of their limited productive resources to answer the basic economic questions of what to produce, how to produce, and for whom to produce. To one degree or another, societies rely on the price system to accomplish this task. Societies which rely primarily on the price system are called **market**, or **capitalist**, economies.

In a price system, changing prices in the marketplace guide economic activity, simultaneously coordinating the diverse interests of millions of individuals in their roles as producers and consumers. For example, suppose that a new craze for tennis results in consumers purchasing more tennis rackets. If this is the only change in the market, the increase in demand for tennis rackets will cause the price of rackets to rise, resulting in more profits for producers of tennis rackets. The rise in profits will encourage existing producers to make and sell more rackets and will encourage new producers to enter the market. Eventually, the supply of tennis rackets will increase and the price of rackets will fall again.

The important point to notice in this example is how prices coordinated the independent desires of consumers and producers. The rise in tennis racket prices communicated the consumer's desire for more tennis rackets to producers, provided the financial incentive to producers (in the form of increased profits) to meet the desire in the most efficient way possible, and determined who would get the rackets (those who could afford them). What is striking about the price system's ability to answer these "what, how and for whom" questions is the efficiency with which it is accomplished. This efficiency occurs because those who want to buy and sell a product are free to do so in the way that benefits them the most, in competition with others. It is not necessary for government officials to estimate a society's future desire for particular goods and services and then to organize their production and distribution. In a market system this complicated task happens more or less automatically.

When governments intervene in the market economy and fix prices, there are predictable results. If a government fixes the price of a good above the true market price determined by supply and demand, then there will be a **surplus.** This is because at higher prices the quantity supplied by producers will increase, while the quantity demanded by consumers will decrease. An example of this is the huge surplus of farm and dairy products in the United States.

The opposite happens if a government fixes prices below a true market price. In this case, the quantity supplied by producers will decrease, while the quantity demanded by consumers will increase. The result is a **shortage,** characterized by long lines in stores. Setting prices below market levels helped create the gasoline shortages of the 1970's.

The market price of a good or service is often referred to as the **market clearing price.** This is the price that equalizes the amount producers want to sell and consumers want to buy. It is the price that "clears" the market of goods and services.

The Circular Flow Model of a Market Economy

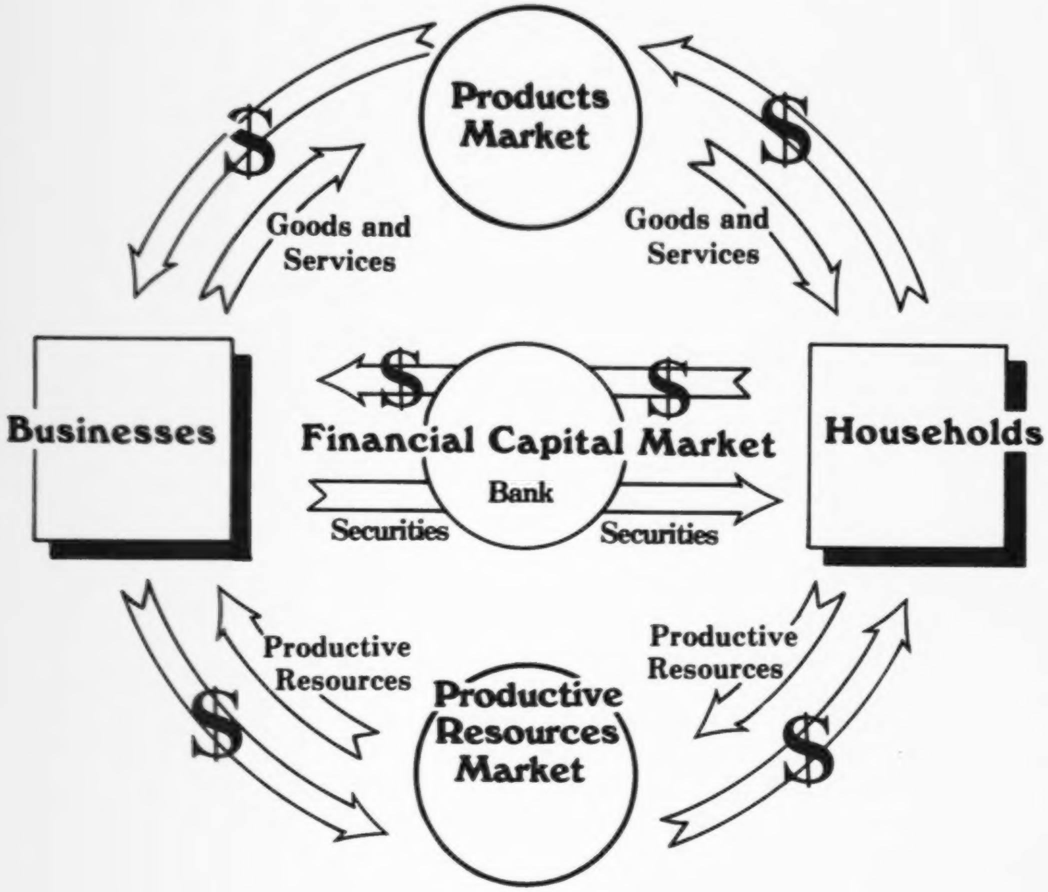
The Circular Flow Model (Figure 5) is a simple illustration of how a market economy works. Households and businesses are the major actors in this model. They interact with each other in three major markets, represented by the three circles. The circular arrows going in opposite directions illustrate two major flows. The inner arrow represents the flow of either goods and services or productive resources. The outer flow represents the flow of money.

The **products market** (top circle) is the market for finished goods and services. As in all free markets, prices are determined by the interaction of supply and demand. Businesses supply goods and services (inner arrow) and households demand these goods and services using money income (outer arrow).

In the **productive resources market** (lower circle), households supply the productive resources, especially labor (inner arrow), and businesses demand the productive resources (outer money arrow) which they use to produce goods and services. The resulting interaction of supply and demand determines the price of the productive resources. In the case of labor, this price is called a **wage or salary.**

Households may not spend all of their income. The income that is **saved** flows into the **financial capital market** (middle circle), where it can be borrowed by businesses to finance more production.[4] Households thus **supply** loanable funds (savings) and businesses **demand** them. The interaction of savers and borrowers in this market for loanable funds results in a special price known as the **interest rate.** Banks, insurance companies, brokerage houses, and other financial institutions help households channel their savings to businesses.

Figure 5: Circular Flow Model of a Market Economy


Products Market
$
Goods and Services
$
Goods and Services
Businesses
$
$
Financial Capital Market
Bank
Securities
Securities
Households
Productive Resources
Productive Resources
$
$
Productive Resources Market

The Role of Government

The circular flow model is a simple illustration of an economy based entirely on a price system. However, no society relies exclusively on the price system to solve the basic economic problem. In command economies, government takes a leading role, whereas in capitalist economies, the role of government is more limited. In the United States, government performs the following roles in the economy:

1. Provides a Legal Framework: Without a defined legal framework the price system cannot operate effectively. Government provides a legal framework when it enforces private contracts, defines private property rights, establishes uniform weights and measures, and establishes and enforces laws and rules that will govern the conduct of producers and consumers in the marketplace.

2. Insures Competition: The price system operates effectively when there are many buyers and sellers competing in the marketplace. The government uses its powers to insure that one or a few sellers do not control a specific area of the economy to the detriment of consumers. The government also establishes public service commissions to regulate **natural monopolies** such as utility companies.

3. Provides Public Goods: Certain goods and services, known as **public goods,** will be provided in less than the desired amount if production is left to the market system alone. The government, therefore, provides these goods and services. Examples include national defense, roads, flood control projects, and lighthouses.

4. Controls Externalities: Certain market transactions result in **externalities,** or **spillovers,** that cause good or bad effects which the parties in the transactions do not bear. Pollution is an example of a **negative externality**. Since polluters can pass on the effects (and thus, the costs) of the pollution to others, government attempts to correct the situation by prohibiting or regulating certain activities. Education is commonly cited as a **positive exter-**

nality. Since other individuals in society besides the direct recipients and providers of the education can benefit, the government uses taxes to provide public education.

5. Redistributes Income: The government uses tax revenues to provide for the needs of those with little or no income.

6. Stabilizes the Economy: Our economy is characterized by business cycles that impose hardships on many people. In "downturns" **(recessions)** in the business cycle there is little or no economic growth, and therefore, significant unemployment. In "upturns," there is frequently **inflation.**[5] The government uses **fiscal policy** (taxing and spending decisions) and **monetary policy** (money supply decisions) to keep the economy as stable as possible.

The role of government in our economy is growing. In 1929, national, state and local government expenditures accounted for 10 percent of our national output, or **Gross National Product** (GNP). By the mid 1980's this had risen to over 30 percent. There is much controversy about this growing role of government. At the root of the controversy lies the ever-present problem of scarcity. The services that government provides, like the services provided by private businesses, are not free. Ultimately, governments must pay for the services from **taxes** taken from individuals. It is, therefore, not surprising that individuals disagree on the growing level of government involvement in the economy.

Making the Market Economy Work: The Role of the Entrepreneur

In a command economy, government determines and directs economic activity. However, in a market, or capitalist economy, economic decisions are made primarily by millions of independent consumers and businesses responding to prices. Businesses attempt to satisfy the wants of consumers in order to earn profits. Those who successfully satisfy consumer demand prosper; those who do not satisfy consumer demand suffer losses and fail.

The key individuals in a market economy who organize the production of goods and services to meet consumer demand are called **entrepreneurs**. The entrepreneur combines the productive resources (land, labor, and capital) to produce goods and services he hopes to sell for a price high enough to cover all the costs of production.[6] The dollar amount remaining after all the production costs have been subtracted is called **profit**.

Since the future is not known, it is not certain that entrepreneurs will earn profits. Many business ventures suffer losses and eventually fail.[7] Entrepreneurs may overestimate consumer demand for a product; or, prices of productive resources may rise unexpectedly. There could be labor strikes, unexpected and costly government regulations, or increased competition from abroad. The uncertainty of the future guarantees that every business venture will entail some degree of **risk**. Entrepreneurs will produce goods and services only if the expected profits are great enough to warrant the risk incurred in production.

In the final analysis, the market system's (price system's) ability to provide goods and services depends on the effort and ingenuity of individual entrepreneurs. It is they, responding to future, and therefore uncertain, consumer demand who ultimately determine what to produce, how to produce, and for whom to produce. Individual entrepreneurs are the driving force in the market economy's answer to the problem of scarcity.

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[1] In many elementary school textbooks, a distinction is made between **wants** and **needs**. Because this distinction is not always clear, economists (to the chagrin of many teachers) usually lump the terms together under the general category of "wants."

[2] It should be noted that in certain instances, the desire for particular goods and services by particular individuals **can** be satisfied. For example, at some point a teacher will not want more (and may even want less!) desks in her classroom. However, **in general**, desks are a scarce good — they are not freely available to anyone who desires them.

[3] It is also possible to increase productivity by producing the same output using **less** inputs. Producing eight bookmarks in 1/2 hour instead of one hour would also increase productivity from eight to 16.

[4] This simple circular flow model shows businesses borrowing savings only from households. In reality, the situation is more complex, since businesses as well as households provide savings to the market. Also, consumers and governments compete with businesses to borrow the available savings. The financial capital market is sometimes broadly referred to as the **money market**.

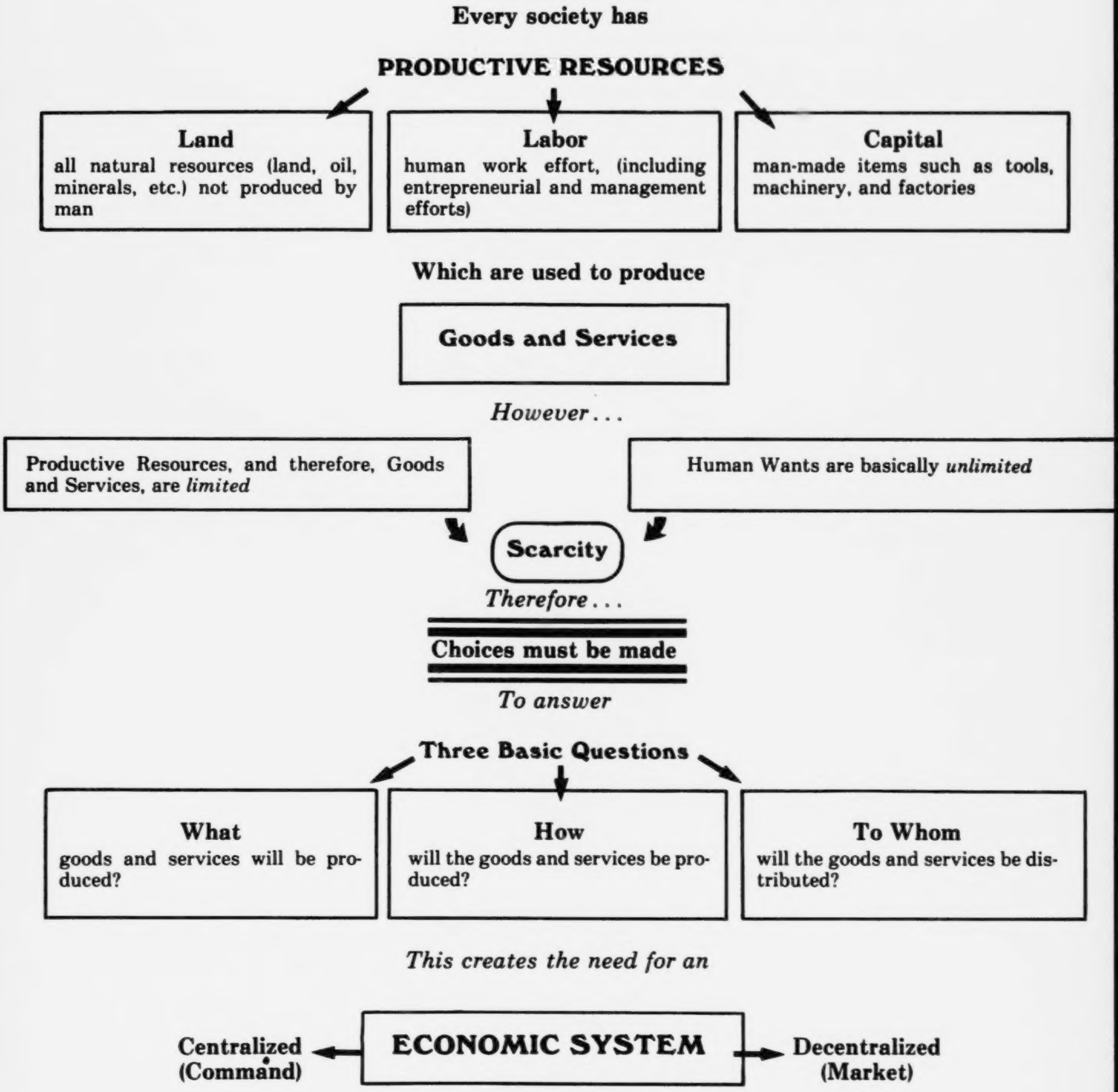
[5] Economists generally define inflation as a persistent increase in the prices of most or all goods and services over a period of time. Over long periods inflation is caused by increases in the supply of money that are greater than increases in the output of goods and services.

[6] Many economists classify entrepreneurship as the fourth basic productive resource.

[7] Over half of all new companies fail in their first two years of operation.

Figure 3:
What Economics Is About

Economics studies how individuals and societies use their scarce productive resources to obtain goods and services.



Every society has

PRODUCTIVE RESOURCES

Land
all natural resources (land, oil, minerals, etc.) not produced by man

Labor
human work effort, (including entrepreneurial and management efforts)

Capital
man-made items such as tools, machinery, and factories

Which are used to produce

Goods and Services

However . . .

Productive Resources, and therefore, Goods and Services, are *limited*

Human Wants are basically *unlimited*

Scarcity

Therefore . . .

Choices must be made

To answer

Three Basic Questions

What
goods and services will be produced?

How
will the goods and services be produced?

To Whom
will the goods and services be distributed?

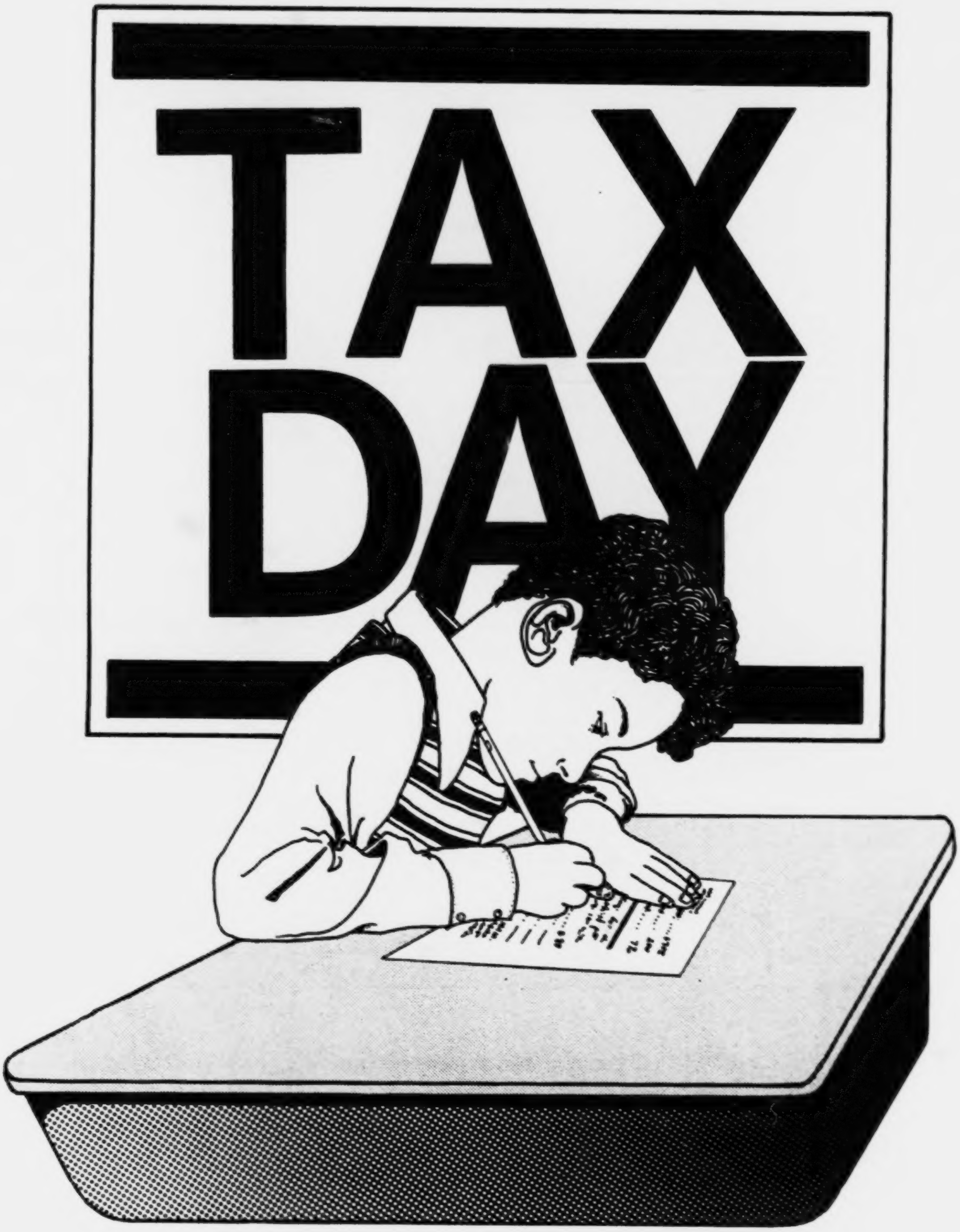
This creates the need for an

ECONOMIC SYSTEM

Centralized (Command)

Decentralized (Market)

The Basic Economic Problem: The Basic Economic Problem for any society is how to make the best use of its various and limited productive resources. Scarcity, with the resulting need to choose among competing alternatives, is the basic economic problem.


TAX
DAY

Chapter 3

Teaching Economics in the Elementary Classroom

Integrating Economics Into The Overall Classroom Environment

Using Everyday Classroom Situations. Economics is an integral part of the world around us, and permeates virtually all facets of life, including the elementary classroom. Listed below are various economic concepts that can be taught using everyday classroom situations.

Scarcity, The Basic Economic Problem, and Opportunity Cost: The reason economics is so pervasive is because scarcity is so pervasive. The basic economic problem, scarcity, and the resulting need to choose among competing alternatives, affects everyone, even elementary students.

Where should the class go on a field trip? Who gets to use the classroom computer? What software should the teacher buy? Who gets the playground ball at recess? What game do we play using the playground ball? These common examples, and many others like them, are excellent opportunities to illustrate the existence of scarcity, and the need to make choices. The teacher can then explain how each choice entails an opportunity cost, and can help students identify this cost.

Allocation Mechanisms: Typical classroom situations like those discussed above reveal the need for some kind of allocation mechanism to determine how scarce resources will be used. For example, how does a teacher determine who gets to use the classroom computer first? There are various ways, such as first come-first served, students who finish their work first, alphabetical order, or (in a mini-economy) those students willing to purchase the right to use the computer. The main point to emphasize to your students is that resources are scarce, and therefore, some allocation mechanism must be used.

Goods and Services: Students should understand that education is a service, rather than a good. Discuss whether their parents' occupations entail producing a good or service.

Productive Resources: Education is a service that is produced using a combination of many productive resources. Students can analyze which specific resources are used, classifying them under the categories of land, labor, and capital.

Specialization, Division of Labor, and Interdependence: Individuals specialize in what they produce and then trade to get other goods and services they want. Custodians, teachers, maintenance personnel, secretaries, and cafeteria workers have all acquired special skills that make them more productive. Students can analyze these special skills. What training is needed? What is the opportunity cost of the training? Does increased training result in higher wages and salaries?

Specific production processes are also specialized. This division of labor is evident in the operation of the school cafeteria, where kitchen personnel perform different tasks to produce meals efficiently. Even the teaching responsibilities in a school are specialized. Art, music, physical education, and special education teachers provide specialized teaching services. Some schools hire teacher aides or use volunteer workers to do certain tasks, such as grading some homework papers or doing lunch or recess duty. This allows teachers to concentrate on the more skilled teaching tasks.

A major result of specialization and the division of labor is interdependence. Students can analyze to what degree individuals working in schools depend on each others' skills and abilities.

Productivity: There are various ways that schools become more productive. Some of these include the use of more capital, use of better capital, special training for workers, and specialization and division of labor. What capital do teachers use to make them more productive (chalkboards, desks, media equipment, paper, etc)? How has the change in the kind of capital made teachers more efficient (VCR's replacing film projectors, copy machines replacing ditto machines, etc.)? What kind of training would make school personnel more efficient workers? How does job specialization within a school building or in the cafeteria kitchen result in more productive workers?

At Indianapolis Public School #56, these two consumers face difficult decisions at the store in Alice Van Eck's classroom.

Government and Taxes: Teachers in public schools can point out that the education their students are receiving is financed primarily by taxes that individuals and businesses pay to state and local government. It is primarily the government, and not directly the price system, that determines how many scarce resources (i.e. how much money) will be devoted to public education. Students in private and parochial schools should realize that their education is financed primarily by tuition payments, which are determined largely by the forces of supply and demand.

Summary: The examples above describe only a few of the ways to use the everyday school environment to teach basic economic concepts. It is important to mention that **formal economics lessons are not necessary to introduce students to many of these concepts.** The concepts can be taught informally, as situations arise naturally during the school day. Students are usually very interested in this informal type of instruction, since it relates to their immediate environment.

Using Economics Vocabulary Whenever Possible. During the course of a school day there are many opportunities to use economics vocabulary, whether or not mini-economy activities are occurring. Making this vocabulary a normal part of a student's thinking process reinforces the understanding of basic economics concepts without introducing formal economics lessons. Some examples of how to substitute economics vocabulary for typical language usage are listed below.

1. There are not enough desks by the window for everyone to have one.

   Desks by the window are **scarce**.

2. How do we decide who gets to sit by the window?

   How can we **allocate** the desks by the window?

3. If we play softball at recess, we cannot play kickball.

   The **opportunity cost** of playing softball at recess is not playing kickball.

4. The school secretary's job is important to our school.

   The school secretary provides a valuable **service** to our school.

5. The school supply company delivered the gymnastics equipment today. What other things do they sell?

   The school supply company delivered the gymnastics equipment today. What other **goods** do they sell?

6. What will you give me for these baseball cards?

   What will you **exchange** for these baseball cards?

7. Did you trade all of your marbles for a transformer robot?

   Did you **barter** all of your marbles for a transformer robot?

8. What tools and equipment are the workers using to fix the downed telephone lines?

   What kinds of **capital goods** are the workers using to fix the downed telephone lines?

9. A good education will make you a better worker. It is a way to improve your skills and knowledge.

   A good education will make you more **productive**. It is a way to **invest** in **human capital.**

10. In our school building there are many different kinds of jobs.

    In our school building people **specialize** in different types of jobs.

11. You can get more math problems done using a calculator.

    You can be more **productive** in math using a calculator.

12. How much do hamburgers cost at the drive-in?

    What is the **market price** of hamburgers at the drive-in?

13. Did we make any money on the class bake sale?

    Did we earn a **profit** on the class bake sale?

14. There are so many students buying NFL pencils, that the bookstore cannot keep enough in stock.

    There is a **shortage** of NFL pencils in the bookstore. If the bookstore does not increase the **supply** of pencils, the **price** will probably rise.

15. The price of everything seems to be rising!

    Our economy is experiencing **inflation**. The price of everything seems to be rising!

16. Susan's dad just lost his job. How can we help her family?

    Susan's dad is now **unemployed**. How can we help her family?

17. I had another flat tire on the way to school. I wish they would fix those potholes!

    I had another flat tire on the way to school. I wish the **government** would use our **taxes** to fix those potholes!

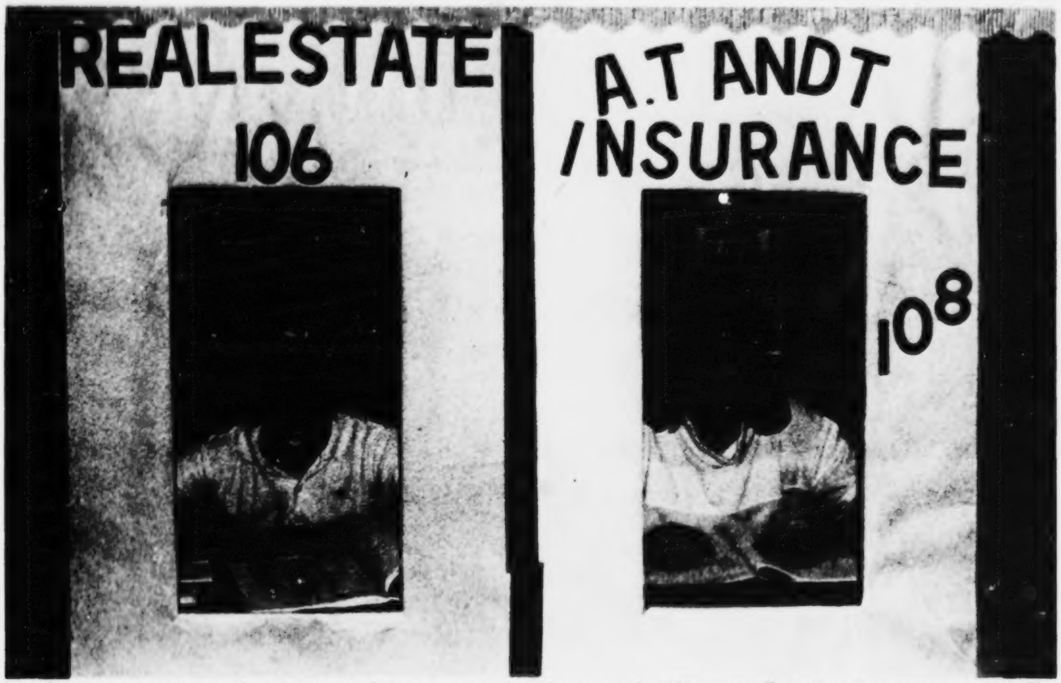
18. Do you think the new pizza restaurant will cause the older one to go out of business?

    Do you think the **competition** from the new pizza restaurant will cause the older one to go out of business? People seem to like the new store better.

19. What things do we need to start our classroom business?

    What **productive resources** do we need to start our classroom business?

To refine this vocabulary usage many teachers place mobiles or posters throughout their classroom. Thus, students get a visual as well as oral explanation of important economic concepts.



Students operate real estate and insurance businesses in Sharon Crist's classroom at Salk Elementary in Merrillville.

Using Existing Curriculum Materials

Social Studies. There are many ways to use existing elementary curriculum materials to teach economics. This is especially true in social studies. Social studies textbooks frequently introduce economic concepts such as needs and wants, decision-making, resources, work, goods and services, community helpers, production, government services, taxes, trade, money, profit, technology, and economic systems. Although these concepts are not usually taught as part of a comprehensive economics curriculum, they are good starting points for more in-depth instruction and for the introduction of other appropriate economic concepts.

Certain social studies teaching units are ideal for introducing economics. For example, the study of early Indiana history provides many opportunities for teaching basic economics. What goods did pioneers and Indians produce in order to trade? Why did they trade? Who benefited from the trade? What capital goods were used to produce the goods that were traded? How were prices determined? Was money used? Why or why not? What were the economic reasons for using river transportation in trade and settlement? Why did individual settlers often produce a wide variety of goods and services? Were large pioneer families an economic burden or asset? What was the economic role of pioneer women? How has that role changed today? Why?

Many other opportunities for teaching economics exist within the social studies curriculum. Some economic concepts are already present in the curriculum materials, but in most cases, teachers will have to expand upon these concepts and introduce new ones where appropriate.

Language Arts. Language arts activities can also be used to teach economics. Children's stories frequently have economic themes. Because stories are motivating for most students, these stories are especially effective for teaching economic concepts. Short discussions of economic concepts can arise naturally during the course of reading lessons. Stories may be used to introduce or conclude economics lessons, or may be used as the actual focus of the lessons. The Joint Council on Economic Education's booklet, *Learning Economics Through Children's Stories*, contains a helpful bibliography of children's stories that teachers can use to introduce economics to elementary children.

Creative writing exercises can emphasize economic themes. Essay titles might include, "The Most Difficult Thing About Running A Business," or "Why Education Can Make Me a Better Worker." Students can also create original advertisements for imaginary or real products.

For handwriting, have students complete an imaginary job application. (If a mini-economy is in operation, students can apply for real classroom jobs.) Students will see a reason for learning to write neatly and spell correctly.

Math. Teachers can use the math curriculum to teach economics. For example, story problems can have economic themes:

Sally and Sarah sold 18 glasses of lemonade at $.50 a glass? What were their **total revenues?**

If the girls had business expenses of $.25 per glass, then what was their **profit** on all the glasses sold?

John has $16 in his **checking account**. If he deposits $17, what is his new **balance?**

Erin bought a share of Exxon **stock** at 43 1/2. She sold it for 47 3/4. What was her **profit?**

Entire units or specific lessons may center around economic themes. Why not teach addition and subtraction using checking account forms? Tests and worksheets could require students to calculate various deposits and withdrawals to determine a correct balance.

Summary. A common frustration expressed by elementary teachers is the lack of instructional time available in the school day for actual teaching. For many teachers, the thought of introducing economics into the curriculum can be rather overwhelming. The examples in this section illustrate ways to teach economics without greatly modifying the existing curriculum. More importantly, the economic content will be meaningful to students since it will relate to everyday classroom situations and to existing curriculum materials.

Teaching Economics Using Mini-Economy Activities

The following section identifies economic concepts that can be taught using specific mini-economy activities. Each mini-economy activity is followed by a list of various economic concepts. The lists are not exhaustive, and teachers will be able to identify other concepts that would apply. Obviously, in most mini-economy situations, it may not be practical or appropriate to introduce all of the concepts listed under a particular activity. Teachers must consider their own training, grade level, student characteristics, and local curriculum guidelines. However, this section should be a useful tool for teachers who want to introduce more economics into their mini-economy.

In this section, the economic concepts are not explained in great detail. Teachers can consult Chapter 2, the glossary, notes from previous workshops and classes, or other publications if a review of the concepts is needed.[1]

Jobs: In most mini-economies, students earn income by performing various classroom jobs. This provides the opportunity to teach several basic concepts.

- Labor: The work effort expended in performing jobs is labor, one of the productive resources.
- Scarcity: Labor, like the other productive resources, is scarce. Therefore, to obtain labor, the teacher or student business owners must pay wages.
- Wages: Wages are the income workers receive for labor services performed. Skilled workers receive higher wages than unskilled workers because they are generally more productive.
- Choice: Students must choose which type of job to perform. Because time is scarce, students cannot perform as many different jobs as they may like.
- Opportunity Cost: When students choose to do one job, they give up the chance to do another. The most valued job not chosen is their opportunity cost. All economic decisions have an opportunity cost.

These enterprising entrepreneurs operate an advertising agency in Paul Kaplan's classroom at Harcourt Elementary.

- Human Capital: The skills that the students already have or learn on the job comprise their stock of human capital. Workers who have acquired special skills are more productive than unskilled workers. Skilled workers generally earn higher wages than unskilled workers.

- Productive Resources Market: Businesses demand labor and workers supply labor in the productive resources market. The market price of labor is called a wage or salary. In the classroom, the teacher can refer to the market for the employment of student workers as the job market or labor market. (See "Wages" on preceding page.)

- Productivity: Students who perform their jobs efficiently are productive workers. Workers can increase productivity by doing more work in the same amount of time, or doing the same amount of work in less time. Training and education and the use of capital equipment increase a worker's productivity.

- Specialization: Student workers will specialize in the types of labor they perform. Specializing enables workers to be more productive. Workers that have highly specialized skills are sometimes very scarce. They earn higher wages than less specialized workers.

- Inflation: A teacher can announce that in the future all wages and salaries will double. Students will be thrilled, not realizing that unless there is an increase in the **goods and services** that can be bought with the new money, they are, in fact, no wealthier. Higher money wages, without a corresponding increase in the supply of available goods and services, results only in inflation. Watch the classroom price level rise!

Stores: Stores are common to many mini-economies and can be used to illustrate many economic concepts.

- Goods and Services: The tangible items offered for sale in various mini-economy stores can be identified as goods as opposed to services.
- Consumers: Students who purchase goods and services at the store are consumers.
- Producers: Students who provide goods and services to sell at the store are producers. Store owners in a mini-economy may or may not actually produce the goods and services they sell.
- Middlemen: Retail store owners who do not produce the goods they sell, but who sell goods made by other producers, are actually middlemen. Middlemen make it easier for consumers and producers to interact, thus reducing the costs of trade.
- Inventory: The unsold goods in a store are called inventory. An inventory acts as a buffer against immediate fluctuations in price which are caused by changes in supply or demand.
- Scarcity: Goods sold in the store are scarce — at zero price, there are not enough to satisfy everyone's wants. The income students have is also scarce. They must, therefore, choose which goods to purchase.
- Opportunity Cost: When students purchase an item, they give up the opportunity to save or purchase something else. There is an opportunity cost to every purchasing decision.
- Price: Because goods and services are scarce, some allocation mechanism is needed to determine who will have the right to use goods and services. In a store, price is the allocation mechanism. Those students who can afford to purchase the goods and services can obtain them.

- Valuing and Consumer Preference: A consumer who places a high value on a good will be more willing to pay a higher price for the good. If consumers place a low value on a good, they will be less willing to pay higher prices.

- Benefits from Exchange (Trade): When a buyer purchases goods from a seller **both** parties expect to benefit, otherwise the exchange would not take place.

- Money: Money used in store purchases has no intrinsic value. The money has value because it is accepted as a medium of exchange when purchasing goods and services. Buyers and sellers use money because it lowers the cost of trade. It makes trade more efficient.

- Markets: Markets are where buyers and sellers interact. A classroom store can be considered part of the products market. In a market, buyers (consumers) want to buy at low prices. Sellers (producers) want to sell at high prices. The price that buyers and sellers agree upon is the market price, or market clearing price.

- Demand: If students are willing and able to purchase goods from a class store, then there is a demand for those goods. The Law of Demand means that consumers will purchase more of a good at lower prices than at higher prices; and will purchase less of a good at higher prices than at lower prices.

- Changes in Demand: Over a certain time period, if the price of a good remains constant, yet, consumers purchase more of the good, then there has been an increase in demand. If the price remains constant and consumers purchase less of the good, there has been a decrease in demand.

- Supply: If store owners produce and sell certain goods, then there is a supply of those goods. The Law of Supply states that producers will provide more goods at higher prices than at lower prices; and will provide fewer goods at lower prices than at higher prices.

- Changes in Supply: If the price of a good remains constant and producers still provide more of that good for sale, there has been an increase in supply. If the price remains constant and producers provide less of the good for sale, then there has been a decrease in supply.

- Advertising: Store owners advertise to provide information to consumers in order to encourage them to buy their products.

Owners hope the advertising will increase the demand for their products.

- Competition: Stores which produce and sell similar goods are in competition with one another. In a very real sense, stores compete with other stores, not with consumers. Likewise, consumers compete with other consumers to purchase scarce goods.

- Profit: The total revenues from the sale of goods minus the explicit costs of operating the store (wages, rent, utilities, wholesale costs of goods, etc.) equals the accounting profit. When implicit costs such as the value of alternative uses of the store owner's time and capital are also subtracted, this equals economic profit. (See "profit" entry under student businesses for an example.)

- Taxes: Sales taxes are usually paid to the government by store owners. However, store owners do not bear the full burden of the sales tax, since the tax is at least partially passed on to consumers when purchases are made.

- Market Price (Market Clearing Price): This price equalizes the amount of a good that consumers want to purchase and producers want to sell. The price is determined by the forces of supply and demand. At the store, if students want to buy more units of a certain product than are available for sale at a specific price, then the price of the product is below the market clearing price. By raising the price, the store owner can eliminate this shortage, equalizing the quantity supplied and quantity demanded. If students want to buy less units of a product than are available for sale at a specific price, then the price is above the market clearing price. By lowering the price, the quantity supplied and quantity demanded can be equalized, and the surplus removed.

Auctions: Most of the economic concepts that can be taught using a classroom store can also be taught using a classroom auction. The mechanics of the auction process, however, allows teachers to emphasize several important economic concepts.

- Law of Demand: The auction process provides an excellent illustration of the Law of Demand. At a low price, many students will bid for a certain item. As the price rises, fewer students will bid for the item.

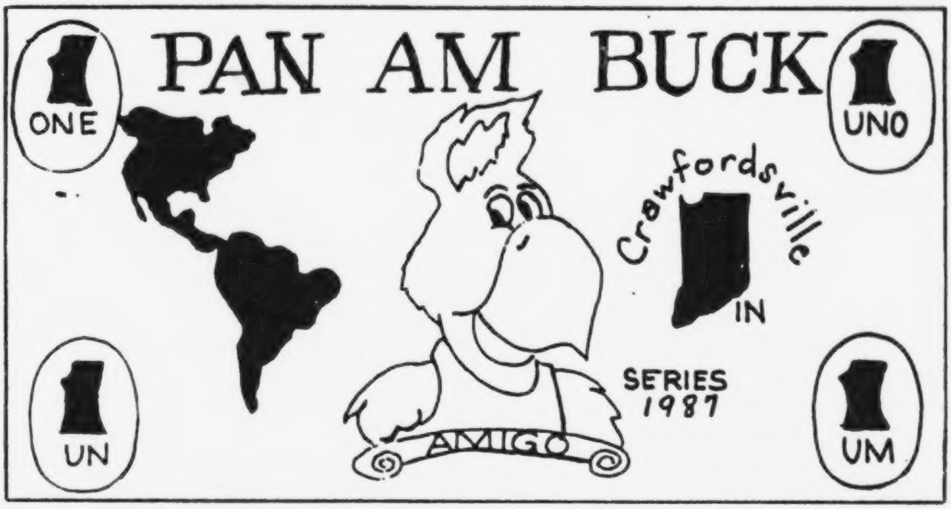
- Supply and Demand: An auction makes it easy for students to see how supply and demand interact to determine market price. Students can also see how the magnitude of supply or demand influences price. For example, items that are highly valued by students, and that are limited in supply, will command high prices. If more of these items are offered in the auction, then the price will fall.

- Market Clearing Price (Market Price): In an auction the price paid for an item is the market price, since the auctioneer will keep raising the bids until the item is sold. In a store this process happens less quickly, and the price set by store owners for an item may initially be below or above a true market clearing price. (See "Market Clearing Price" entry under Stores.)

- Competition Among Consumers: The bidding process in an auction illustrates clearly how in a market economy, consumers compete against other consumers to determine who will obtain scarce goods and services.

- Consumer Preference and Ability to Pay: An auction shows clearly that 1) different individuals value some products more than others, and that 2) income (ability to pay) affects how much individuals are willing to pay for products, and how many products they can consume.

- Inflation: As a teacher injects more play money into the economy, students initially will believe that they are wealthier. However, if the items that can be purchased at the auction and elsewhere remain constant, students will soon realize that their real wealth has not increased. An increase in money is not necessarily an increase in wealth.



Student Businesses: In many mini-economies, students operate their own classroom businesses. This is particularly valuable because it may be the first opportunity for many students to engage in economic activity as a producer, rather than as a consumer. Students can sell items such as pencils, paper, or small toys and books they have purchased or brought from home. Students frequently produce the goods or services themselves. For example, businesses can produce goods such as bookmarks, potted plants, or stationery. Services that can be provided include desk cleaning, detective work, tutoring, or toy rental. Some of the many economic concepts that students can learn by operating businesses are discussed below.

- Producers: The student businesses that provide goods and services are producers.
- Consumers: The students who purchase goods and services from businesses are consumers.
- Productive Resources: The classroom space and raw materials (land), workers (labor), and tools (capital) are the productive resources that student businesses use to produce goods and services.
- Production: Student businesses that use land, labor, and capital to provide goods or services are engaged in production.
- Scarcity: The productive resources (land, labor, capital) that students need to produce goods and services are scarce. They are not freely available in unlimited quantities. They, therefore, have a price, and must be purchased. The goods and services produced by businesses are also scarce, and, therefore, command a price in the marketplace.
- Choice: Because productive resources are scarce, students must choose 1) which goods and services to produce, and, 2) which productive resources to use to produce goods and services. A student who decides to produce bookmarks must then decide whether to hire artists (labor) to produce them by hand, or whether to design and produce the bookmarks using the computer (capital).
- Opportunity Cost: Productive resources used to produce one good or service cannot be used to produce another. The opportunity cost of producing a good or service is the most valuable alternative good or service that a classroom business now **cannot** provide.

- Price: Price is the allocation mechanism used to distribute scarce productive resources among competing producers. Student businesses use productive resources only if they can afford to purchase them. For example, suppose rent must be paid to use the extra desks or tables in the classroom as "stores" to make and sell goods. Since the desks and tables are scarce, only those student businesses who can afford to pay the rent can use them. The supply and demand for desks and tables (and all other productive resources) determines a market price for those resources.

  Price is also a signal that tells businesses what to produce. If the price of a certain good or service rises relative to other goods or services, it is a signal that consumers want more of that good or service. Because the rise in price could mean more profits, businesses will use scarce productive resources to produce more of that particular good or service.

- Interdependence: Producers depend on other producers to provide capital goods and other resources used in production. Retail businesses that sell goods depend on producers to supply them with those goods. Greater specialization always leads to greater interdependence.

- Inventory: The goods that a student business has produced, but has not yet sold, are its inventory. An inventory acts as a buffer against immediate fluctuations in price caused by changes in supply or demand.

- Supply: The student businesses supply goods and services to the classroom market. Businesses will supply more goods and services at higher prices than at lower prices. Supply can change. If new or existing businesses produce more of a good at prevailing prices, this would be an increase in supply. If businesses produce less of a good at prevailing prices this would be a decrease in supply.

- Demand: Student consumers demand the goods and services produced by the businesses. Consumers will buy more at lower prices than at higher prices. Demand can change. If students purchase less of a good at prevailing prices, this would be a decrease in demand. If they purchase more at prevailing prices, this would be an increase in demand. When businesses advertise, they attempt to increase demand.

- Profit: The amount remaining after subtracting all business costs from sales revenues is profit. Students should consider carefully the value of forsaken alternatives when computing profit. A student who earns $25 a week operating a business, but who could

In Bruce Schooler's classroom at Protsman Elementary, students hope to earn a profit operating a photography business.

earn $35 a week as the class librarian, in a very real sense has not earned a profit. Economists would say the student earned an accounting profit of $25, but an economic profit of **minus** $10.00! It is important for students to realize that profits are the incentives that encourage businesses to continue or expand production. Profits are "signals" that let businesses know what consumers are demanding.

- Competition: Student businesses who sell similar goods and services compete with each other. Competition pressures businesses to lower production costs and product prices, and to increase product quality.
- Monopoly: A student business that is the sole producer of a good or service is a monopoly. Monopolies are not guaranteed to make a profit. They must still produce goods and services that consumers want at a price that covers production costs.
- Investment: Students who start businesses must invest income that could be used for current consumption to acquire the capital and skills necessary to operate the businesses. In doing so, pre-

sent consumption is sacraficed in hopes of greater future income. Businesses acquire investment funds from three sources: 1) retained business earnings 2) borrowing 3) stock issues. Both borrowing and stock sales are dependent on savings by households, which must limit their current consumption.

- Risk: Because businesses must cover production costs when producing goods and services, students cannot be certain that their businesses will earn a profit. There is an element of risk in every decision to start a business.

- Technology/Productivity: By adopting new technology, businesses become more productive, and, hopefully, more profitable. For example, a student letter writing service may decide to use a word processor instead of writing letters by hand.

- Entrepreneurs: Those students who take risks to produce goods and services are entrepreneurs. The goal of the entrepreneur is to earn a profit. It is never certain that a profit will be made.

- Human Capital: Those students who have mastered the skills necessary to produce a certain good or service have acquired human capital. The acquisition of human capital makes workers more productive. Skilled workers are more scarce than unskilled workers, and, therefore, earn higher wages.

- Types of Businesses: A business with one owner is a sole proprietorship. A business with two joint owners is a partnership. Businesses may also be organized as a corporation, which is a legal entity chartered by the state government created for the purpose of doing business. The most crucial difference between a corporation and the other two forms of business organization is the corporation's limited liability. In a lawsuit, corporate stockholders are liable only to the extent of their individual investments in the business. Sole proprietors and partners are fully liable, and could lose personal assets.

Banks: Almost every mini-economy has some kind of bank. In some cases, the teacher operates the class bank, hiring students as employees. In other classes, students own and operate their own private banks. In either case, students can learn various economic concepts associated with banking.

- Savings: After-tax income not spent on consumption, is called savings. Individuals frequently deposit savings in banks or other financial institutions, such as savings and loans or insurance companies. Savers receive interest on deposits.

- Interest: To compensate savers for depositing funds in the bank (thereby forgoing present consumption), banks pay savers interest. Borrowers pay the bank interest for use of the funds deposited by savers.

- Loans: Student banks can make loans to classroom businesses or individual consumers. Loans must be repaid within a specified time period. In addition to repaying the principal loan amount, borrowers must pay interest.

- Banks: Banks are businesses that help channel savings from savers to borrowers. In this role as a middleman, a bank earns a profit by charging higher rates of interest on loans than it pays for savings.

- Interest Rate: Interest rates are determined by the interaction of the supply and demand for loanable funds (mostly savings) in the financial capital market (money market). Higher interest rates encourage more saving and less borrowing. Lower interest rates encourage less savings and more borrowing.

- Checking Accounts: In the real world and in the classroom mini-economy checking accounts are actually money. Banks now pay interest on most checking accounts as well as on savings accounts.

Insurance Companies

Many teachers have insurance companies in their mini-economies.[3] Teachers sometimes operate the class insurance company, but it can be even more instructive if students operate their own insurance companies. Some basic insurance concepts and terms that can be taught are discussed below.

- Risk: Risk is the probability that a given event will occur. In the mini-economy teachers usually pretend that certain unfortunate events, such as automobile or household "accidents," regularly occur. If there are three simulated accidents each week in a class of 30 students, the probability (risk) is one out of 10 that a student will have an accident.

- Insurance: Students can purchase insurance to protect them from the risk of an "accident." When deciding if they need insurance, students must determine how much they are willing to risk that an accident will not happen. Students should consider their current and future income, potential costs of an accident, the probability that an accident will occur, and the cost of an insurance policy.

- Insurance Policy: This is a written contract that explains the insurance coverage in detail. In a mini-economy, policies are usually very simple, but they should contain pertinent information, such as the type of insurance, premium, deductible, amount of coverage, and policy expiration date.

- Premium: This is the amount of money students pay to purchase insurance. Premiums may vary, as student insurance companies compete to attract customers.

- Deductible: This is the amount the insured student agrees to pay before the insurance company begins to make payments.

Government and Taxes: Every economy, including the elementary mini-economy, requires some form of government. In some mini-economies, the teacher is the "government." In other classes, students form their own government, electing representatives to carry out the classroom's governmental activities. Some of the many economic concepts that can be taught by implementing govrnment and taxation in the mini-economy are described below.

- Government Services versus Private Services: Services can be provided by governments or by private businesses. In the mini-economy, students must choose how to provide services. For example, classroom postal services or trash collection can be performed by salaried government workers or by student businesses.

- Scarcity, Opportunity Cost, and Choice: The tax revenues that governments collect are scarce. Governments must, therefore, choose how to spend these revenues. Money used to provide one service cannot be used to provide another. Every governmental decision has an opportunity cost.

- Taxes: Students who experience taxation in a mini-economy will understand that taxes reduce their spendable income. Many teachers levy income and/or sales taxes. Using tax revenues to support an actual classroom government lets students see the direct link between taxes and the services they provide. Governments ultimately can provide services only through taxation.[4]

- Tax Rates: One multiplies the tax base by the tax rate to determine tax revenues. A tax rate that is larger for higher incomes than for lower incomes is called progressive. If rates are higher for lower income students than higher income students, this is called a regressive rate. A tax rate that is the same regardless of a student's income is proportional.

- Deductions: Some teachers allow certain deductions on their students' income tax forms. The deductions usually parallel deductions allowed by the IRS. For example, students may receive a standard deduction, or may deduct contributions to a class field trip fund or classroom charity.

- Functions of Government: Students can learn about the various functions of government discussed in Chapter 2. For example, a classroom government can:

  — establish rules (a legal framework) which will govern economic behavior in the classroom.
  — ensure that the classroom business environment remains open to competition.
  — provide certain services (postal service, police protection.
  — control certain spillover effects. For example, the government can deal with the excess "pollution" or noise caused by a private business.
  — institute some kind of welfare system.

Real Estate: Many teachers incorporate real estate into their mini-economies. Students usually have to purchase a desk for their "home," or may rent from other students. Also, students who operate classroom businesses must rent or buy a place to make and sell their goods and services. Such mini-economy activities lead naturally to the study of many economic concepts.

- Rent: Students who do not purchase a desk must pay rent to a desk owner. Students should understand the difference between renting and owning property.

- Rent or Buy: Students can compare the advantages and disadvantages of renting or buying real estate. Advantages of renting are more freedom to move, less upkeep, no property taxes, less initial cash outlay, and less financial risk. Advantages of buying are freedom to remodel within reason, possibility of investment gain, deductibility of property taxes fund, development of equity (ownership) in the property.

- Lease: Students who rent usually sign a lease or rental contract. A lease contains various stipulations that must be followed.
- Government Enforcement of Contracts: One role of government is to enforce private contracts. In a mini-economy, the teacher or class government must enforce the details of any rental lease.
- Taxes: Local governments levy property taxes on real estate to support local schools and local public services. If there is a classroom income tax, the teacher could allow property taxes to be deductible.
- Mortgage: Students who purchase a desk may have to secure a mortgage loan from a classroom bank. Students should understand that the bank will have title to the property until the mortgage is repaid, and that they must pay interest on the unpaid balance.

The student earns wages by taking care of the plants in Ethel O'Neal's classroom at Indianapolis Public School #18.

- Real Estate Broker: Acting as a middleman, this individual provides information and expertise to buyers and sellers of real estate. The services of a broker reduce the transaction costs of buying or selling real estate. For their services, brokers receive a commission. In the mini-economy, it is very helpful if all the details of real estate transactions are handled by student brokers.
- Value of Capital: A rental property is a capital asset that can produce income for its owner. Students will learn that the value of a piece of property (desk, table, etc.) depends upon the future income that the property brings to the owner. A student may have to pay a high price to purchase a property that has a high, though not assured, potential for producing future income. A property with a low potential for producing future income will sell for less.
- Capital Gains or Losses: The profits or losses resulting from the sale of real estate are called capital gains or capital losses.

Investments: Investments are a natural for a mini-economy. They can be especially effective and interesting because the classroom currency used to make the investments has real value to students. Investment activities are not a pretend matter, since the gains or losses have a direct impact on a student's financial standing in the classroom.

Teachers typically use stocks and commodities for investments in the mini-economy. Students use income they have earned to purchase these investments, and then follow their price changes in the newspaper. When students sell, they incur a capital gain or capital loss. Investments provide excellent opportunities to introduce students to various concepts.

Stocks:

- Stocks: Student companies can issue stock to raise financial capital (money) to operate their business. A share of stock represents ownership, or equity, in a company. As owners, stockholders have a voice in the control of a company through voting rights.
- Dividends: If a company earns profits, it may distribute them to stockholders as dividends. A company may choose not to give dividends and retain some profits for other uses, such as investment in new equipment.

- Stock Market: Buyers and sellers of stocks interact in the stock market. The New York and American Stock Exchanges are well known exchanges where many stocks are traded. On these exchanges, buyers and sellers compete in an auction process that determines the final prices of individual stocks. Since buyers and sellers are trading stocks that have already been issued, the New York and American exchanges are actually a secondary market for stocks. A stock market exchange lowers the transaction (trading) costs of buying or selling stocks. For example, a buyer in Alaska can purchase stock from a seller in Miami in just a few minutes.

- Stockbroker: A stockbroker is an agent who handles the public's orders to buy and sell stock. He is actually a middleman, whose services greatly lower the costs of getting buyers and sellers together to trade. In a mini-economy, student brokers can handle the details of all stock trades.

- Commission: This is the fee one pays to a stockbroker when buying or selling stock.

- Bull Market: A bull market is characterized by rising stock prices.

- Bear Market: A bear market is characterized by falling stock prices.

- Exchange: Students should understand that for every buyer of stock, there is also a seller. Both buyers and sellers expect to gain from any transactions. Buyers believe the value of the stock will rise; sellers generally believe it will fall.

- Risk: Because the future is uncertain, all investments, including stocks, entail some risk. Purchasing the stock of newer, smaller companies is considered more risky than investing in older, well established companies.

- Liquidity: Students will want to be able to convert any investment into cash as soon as possible. Investments that are easily converted to cash are referred to as liquid. Because of large, sophisticated stock exchanges, stocks are considered a liquid investment. Real estate is an investment that is less liquid.

Commodities:

- Commodity: A commodity is an economic good, such as corn, oil, or gold. Commodities are commonly traded in large quantities on commodity exchanges.

- Capital Gains and Losses: Owners of commodities receive no interest or dividends. Investors earn capital gains when they sell a commodity that has increased in value. They incur capital losses when they sell a commodity that has declined in value.

- Commission: This is the service fee paid to a commodities broker when commodities are purchased or sold. In the mini-economy, student brokers should handle the details of commodity transactions.

- Risk: Since the future is not known, every commodity investment entails some risk. In general, commodities are considered risky investments.

References

Kourilsky, Marilyn. *Beyond Simulation: The Mini-Society Approach to Instruction in Economics and Other Social Sciences.* Los Angeles, Educational Resource Associates, 1974.

Kourilsky, Marilyn. *Mini-Society: Experiencing Real World Economics in the Elementary Classroom.* Reading, MA, Addison-Wesley, 1983.

Watts, Michael W. "Empirical Evidence On Economic Literacy in Schools," *Economics Education: Research and Development Issues.* Papers presented at the International Research Seminar held at the University of London Institute of Education: 187-205, July/August, 1985.

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[1] The Joint Council on Economic Education publication, *A Framework For Teaching The Basic Concepts* and *Understanding Economics: Overview For Teachers, Experiences For Students,* by Marilyn Kourilsky, are useful for reviewing basic concepts. See bibliography.

[2] Banks and insurance companies are very common businesses in mini-economies and are disdiscussed in more detail in the next two sections. Chapter 3 of the Indiana Department of Education publication, *The Mini-Economy: Integrating Economics Into The Elementary Curriculum,* provides more information about student businesses.

[3] See Chapter 3 in the *Mini-Economy: Integrating Economics Into The Elementary Curriculum.*

[4] If governments borrow to finance spending, they must pay with future tax revenues. If governments print money to finance spending, individuals are taxed through higher prices for goods and services (inflation).

Annotated Bibliography of Curriculum Materials

The Book Company

In this completely integrated 1st-6th grade economic education unit and software package, students create and operate their own book company. While focusing on economic principles, *The Book Company* integrates creative writing, math, and art. Approximate cost of complete program $149. Cost of manual only (without software) $25 (1986).

Berta-Max, Inc.
Department TBC
PO Box 31849
Seattle, WA 98103
(206) 547-4056

Business Basics

Business Basics is an economic enrichment program designed for 5th or 6th grade students. Selected high school students who are participating in the Junior Achievement Program or the Applied Economics class teach economics and business lessons through discussion, hands-on activities, and role playing.

Junior Achievement
Business Basics Program Director
1317 N. Pennsylvania St.
Indianapolis, IN 46202
(317) 634-3519

Business In My Town

A 13-minute, color filmstrip/cassette teaches about business in a local community. The teacher's guide contains student worksheets. Best for grades 2-5. Approximate cost $25 (1981).

American Institute of Cooperation
50 "F" Street N.W.
Suite 900
Washington, D.C. 20036
(202) 347-1080

Captain Silas

This 14-minute animated film/video of peanut characters dramatizes the economic relationship between two communities. It demonstrates the essential features of a commercial venture and the major economic institutions used in the ordinary business of life. Best for primary grades. Approximate cost of film $320; VHS video $149 (1978).

Beacon Films
PO Box 575
Norwood, MA 02062
(617) 762-0811

Children in the Marketplace: Lesson Plans in Economics for Grades 3 and 4 (2nd edition)

Nine complete lessons use a variety of motivating instructional strategies to teach basic economic concepts. Each lesson is self-contained and includes classroom materials for students. Approximate cost $15 (1986).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

Common Cents

These ten 15-minute video programs use a wide variety of techniques (puppets, animation, music, film, etc.) to teach many economic concepts to primary students. Teacher's manual includes discussion questions and teaching activities. Approximate cost $125 per video program (1976-77).

Agency for Instructional Technology
Box A
Bloomington, IN 47401
(812) 339-2203

Disney's Wide World of Economics and Enterprise

This kit contains five color filmstrips/cassettes which introduce the economics of private enterprise and business. The characters include Donald Duck's nephews, Huey, Dewey, and Louie. Comic books are included. Best for grades 4-6. Approximate cost $169 (1978).

Walt Disney Educational Media
Distributed by Coronet — MTI-LCA Film and Video
108 Wilmot Road
Deerfield, IL 60015
(800) 621-2131

Elementary Economics: A Bibliography

This annotated bibliography describes popular economics education materials for elementary grades. A useful chart describes the economic content covered in each of the materials. Distributed free of charge in limited quantities (1985).

Federal Reserve Bank of Chicago
Public Information Center
230 S. LaSalle Street
Chicago, IL 60604
(312) 322-5109

Elementary Economist

This quarterly publication explains basic economic concepts and highlights teacher-developed K-6 activities which teach the concepts. Subscription rate $15 per year. A packet of back issues is available for $10.

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

Exploring the Community Marketplace for Grades 3 and 4

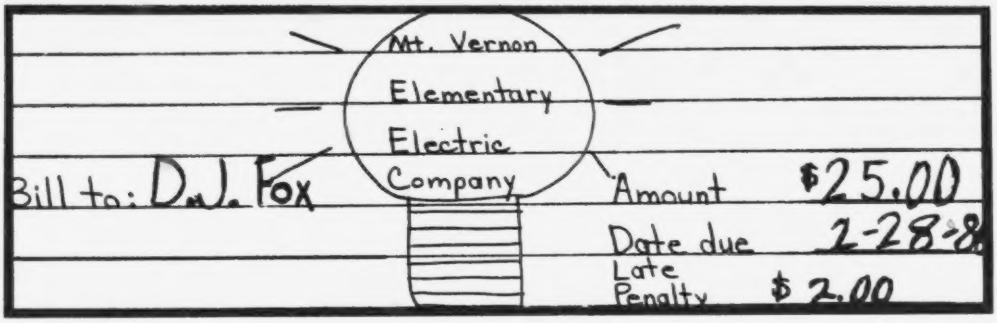
This book is a comprehensive 18-week unit designed to teach basic economic skills and concepts using an interdisciplinary approach. All lessons focus on institutions and businesses in the local community. Approximate cost $17.50 (1983).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

The Fisherman Who Needed A Knife: Why We Use Money
The Man Who Made Spinning Tops: Why People Have Special Jobs

These animated 8-minute color videos illustrate in a humorous and motivating way how money and job specialization help increase productivity. Applicable for grades K-6. Approximate cost $175 each (1970).

Coronet-MTI-LCA Film and Video
108 Wilmot Road
Deerfield, IL 60015
(800) 621-2131



A Framework for Teaching the Basic Concepts (2nd edition)

This booklet discusses basic economic concepts and explains a simple decision-making model. It is helpful for teachers who have not had much formal training in economics. Approximate cost $7 (1984).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

Give and Take

This 12-part film/video series is designed for junior high, but can be used selectively at the upper elementary level. Each 15-minute film covers a specific economic topic. The teachers manual contains student worksheets. Available on a free loan basis (1982).

Indiana Council for Economic Education
Room 222, Krannert Center
Purdue University
West Lafayette, IN 47907
(317) 494-8540

Kingdom of Mocha and Return to Mocha

These animated cartoon films portray the economic activities of humorous characters on make-believe South Sea islands. In both films, many different economic concepts are introduced. Intended for 7th-12th grade students, but appropriate for elementary students in certain situations (1986).

Amoco Foundation
Available on a free loan basis from:
The Indiana Council for Economic Education
Room 222, Krannert Center
Purdue University
West Lafayette, IN 47907
(317) 494-8540

Learning Economics Through Children's Stories (5th edition) Robert Hendricks, Andrew Nappi, George Dawson, Mindy Mattila.

This booklet describes 273 children's books that teachers can use to teach economic concepts. The booklet also lists selected articles on economic education in the elementary school and a summary of the research on this same topic. Approximate cost $4.95 (1986).

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

Lifegames Saul Z. Barr

This booklet describes 80 activity-centered economics lessons for primary children. The booklet emphasizes four themes: Goods and Services, Specialization and Jobs, Productive Resources, and Money and Banking. Approximate cost $13.50 (1985).

Addison-Wesley Publishing Company
1843 Hicks Road
Rolling Meadows, IL 60008
(800) 535-4391

The Mini-Economy: Integrating Economics into the Elementary Curriculum

Using this booklet teachers can learn how to initiate and expand a classroom mini-economy. Reproducible mini-economy aids are included. Cost $4; free to Indiana teachers (1986).

Indiana Department of Education
Office of School Assistance
Room 229, State House
Indianapolis, IN 46204-2798
(317) 269-9641

Mini-Society: Experiencing Real-World Economics in the Elementary School Classroom Marilyn Kourilsky

This booklet explains in detail how to set up a Mini-Society in the intermediate grades. There is a strong emphasis on teaching economic content. Approximate cost $12 (1983).

Addison-Wesley School Division
1843 Hicks Road
Rolling Meadows, IL 60008
(800) 535-4391

Oak Lane Tales

In this video series of eight 15-20 minute lessons, animal characters in the community of Oak Lane live, work, and play together to illustrate various business and economic concepts. The series is not animated. Rather, it is a filmstrip in video format. Best for grades 2-4. Approximate cost of complete set $375 (1986).

WRI Education
11722 Sorrento Valley Road
San Diego, CA 92121
(800) 972-3635

Once Upon A Dime

This three-part filmstrip/cassette series defines money and demonstrates its usefulness. A teacher's guide and comic book lessons for students are included. Best for grades 3-6. Approximate cost $29.50 (1985).

FRB New York
Public Information Department
33 Liberty Street
New York, NY 10045
(212) 791-6134

Master Curriculum Guide (MCG) Series: Strategies for Teaching Economics

Primary Level (Green)
Intermediate Level (Gold)
Middle School/Junior High Level (Dark Green)
Using Economics in the Social Studies Methods Course (Purple)

These booklets contain many different teaching activities covering a wide variety of economic concepts. Approximate cost $8.50 each.

Joint Council on Economic Education
2 Park Avenue
New York, NY 10016
(212) 685-5499

Scholar Dollars: Their Use in Classroom Management Ruth Deery

This booklet describes how to implement a mini-economy. Many useful ideas are presented. It includes 20 pages of reproducibles, including currency, forms, job applications, and various other documents for use in the classroom. It was first published by Good Apple, but is now out of print. It is available on microfiche in the ERIC Collection (ED 221450) (1982).

EDRS
3900 Wheeler Avenue
Alexandria, VA 22304
(800) 227-3742

Trade-Offs

These 15 20-minute film/video programs cover many basic economic concepts for upper elementary students. Decision-making skills are stressed throughout the series. Available on a free loan basis (1978).

Indiana Council for Economic Education
Krannert Center, Room 222
Purdue University
West Lafayette, IN 47907
(317) 494-8540

Understanding Economics: Overview for Teachers, Experiences for Students
Marilyn Kourilsky

This booklet explains basic economic concepts and provides activities and simulations. It also presents mini-lessons based on economic "fables" to motivate students. Approximate cost $9 (1983).

Addison-Wesley School Division
1843 Hicks Road
Rolling Meadows, IL 60008
(800) 535-4391

Winnie-the-Pooh and the Value of Things

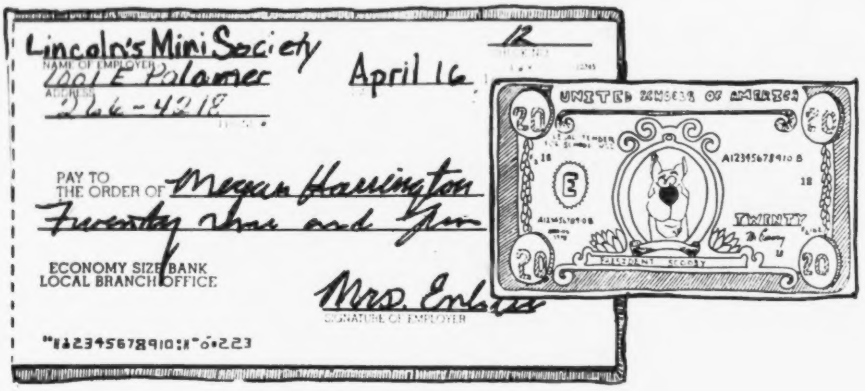
This popular six-part filmstrip/cassette series covers simple economic concepts applicable to the primary curriculum. Approximate cost $199 (1977).

Walt Disney Educational Media
Distributed by Coronet-MTI-LCA Film and Video
108 Wilmot Road
Deerfield, IL 60015
(800) 621-2131

You Choose Marilyn Szymaszek

This motivating booklet introduces primary students to a variety of concepts, including market economy, profit, productivity, price and productive resources. Student activities are included. Approximate cost $2 (1982).

National School Committee for Economic Education
86 Valley Road
Box 295
Cos Cob, CT 06807
(203) 869-1706



Lincoln's Mini Society
NAME OF EMPLOYER
2001 E Palamer
ADDRESS
266-4218
12
April 16
PAY TO THE ORDER OF Megan Harrington
Twenty [illegible] and [illegible]
ECONOMY SIZE BANK
LOCAL BRANCH OFFICE
Mrs. Enb[illegible]
SIGNATURE OF EMPLOYER
"I12345678910:I"0•223

Appendix A

Student Worksheets

The following student worksheets cover many of the concepts introduced in this booklet. Some of the simpler worksheets can be used with primary students, while the more complicated worksheets are designed for the intermediate level. Some of the worksheets can be used with both primary and intermediate students. Answers for selected questions are given at the end of the Appendix.

Which Things Are Scarce?

(Scarcity)

Directions:

1. Circle the things below that are scarce.
2. Underline the thing you think is the most scarce.

Hamburgers **Gold** **Buttons**

Pencils **Air You Are Breathing**

Teaching **Saltwater At The Beach**

Trees **Grapes**

Air In Space

Shirts

A Nurse's Services

Water

Sand In The Desert

TV Repair Services

3. How can you tell if something is very scarce?

Goods or Services

1. In the blanks below put G if the item is a **GOOD** and put S if the item is a **SERVICE.**

______ haircut
______ pear
______ mowing lawns
______ chair
______ washing car
______ fixing TV's
______ pencil
______ shirt
______ cleaning teeth
______ shining shoes

______ book
______ paper cup
______ teaching students
______ painting house
______ car
______ boat
______ typing letters
______ playground ball
______ rake
______ raking leaves

2. Are goods and services scarce? ______________________________

Why? ______________________________

____

____

____

3. How do we get goods and services? ______________________________

____

____

____

M·I·N·I ME ECONOMY

Land, Labor, or Capital?

(Productive Resources)

1. Put a red circle around the productive resources below that represent **LAND**. Put a blue circle around **LABOR**. Put a green circle around the **CAPITAL** resources.

Teaching Students

Fixing A Sink

Gold

Oil

Chalkboard

Water

Fish

Building

Tree

Truck

Telephone

Computer

Pencil

Moving Furniture

Soil

Mowing Grass

Hammer

2. Are productive resources scarce? ______________________

   Why? ______________________________________

   ____

3. What productive resources are needed to produce a house? __________

   ____

   ____

   ____

4. What productive resources are needed to produce a dentist's services? __

   ____

   ____

   ____

Who Provides the Service?

1. Use a red crayon to circle public services provided by the GOVERNMENT. Use a green crayon to circle services provided by **PRIVATE BUSINESSES.**

Police

T.V. Repair

Taxi Service

Street Lights

Library

Teaching

Car Wash

Firefighter

Garbage Collection

2. Where does the government get the money to provide services? ________

____

3. List two services from above which are provided by both government **and** private business. ______________________________

____

____

____

Services — Public or Private

People want many kinds of services. Governments collect taxes to provide some services. Private businesses also provide many services. Some services are provided by both governments and private businesses.

Directions: Put an X in one of the three blanks to show how each service is provided.

	Government	Private Business	Both Government and Private Business
1. Fire Protection			
2. TV Repair			
3. Snow Removal			
4. 1st Class Mail			
5. National Defense			
6. Education			
7. Haircuts			
8. Lawn Service			
9. Mailing of Packages			
10. Police Protection			
11. Garbage Collection			
12. Street Cleaning			

Why do you think national defense is something that could not be provided by private business?

Choices Have Costs

(Opportunity Cost)

When you make a choice, the most valuable thing you do **not** choose is your **OPPORTUNITY COST.**

1. You have just received $5.00 for a birthday present. You must spend it for either a kickball, a large box of candy, or a teddy bear. Put a 1 under your first choice, a 2 under your second choice, and a 3 under your third choice.

KICKBALL	CANDY	TEDDY BEAR
______________	______________	______________

2. What is the **opportunity cost** of your first choice? ____________________

3. Why are your choices different than the choices of other classmates? ____

____

____

4. Suppose your friend has the same first choice as you. Does this mean his or her opportunity cost is the same as yours? Why or why not? __________

____

____

5. Betsy has 1 hour until bedtime. She can read a book, play a game, or bake a cake. She decides to play a game. Her second choice is to read a book, and her third choice is to bake a cake.

   What is the opportunity cost of her decision? ____________________

   Can Betsy's opportunity cost be reading the book *and* baking a cake? Why not? ____

   ____

   ____

Who Benefits?

(Trade)

Below are various trading situations. In each situation decide who benefits from the trade. Circle the correct answer.

1.	Sally trades 6 packs of gum to Jenny for a record	Sally	Jenny	Both Sally and Jenny
2.	Peter trades 20 baseball cards to Tim for a squirt gun.	Peter	Tim	Both Peter and Tim
3.	Austin trades a jump rope to Sarah for a kickball.	Austin	Sarah	Both Austin and Sarah

Trade Among Countries

4. Countries also trade with each other. Examine the labels of different articles of clothing in your classroom. In the blanks below, list 5 articles of clothing and the countries where they were produced. List clothing made in 5 **different** countries.

Clothing	Clothing
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________
______________________	______________________

5. When you or someone else bought the clothing listed above, who benefited? ____

Why? ____

____

____

____

____

Money

Most of the following items have been used as money at some time in history. Some have worked better than others. Ideally, money should have four characteristics. It should be **scarce, durable, divisible, and portable.**

1. Put a plus (+) in the blank if an item fits one of the characteristics of money very well. Put a zero (0) if the item fits somewhat. Put a minus (−) if it does not fit very well at all. The first one has been done for you.

Characteristics

ITEMS	SCARCE	DURABLE	PORTABLE	DIVISIBLE
Shells	0	+	+	−
Gold				
Beads				
Paper				
Tobacco				
Furs				
Silver				
Corn				
Pebbles				

2. Which item above do you think would be *best* for money? ____________

____

Why? ____

3. Which item above do you think would be *worst* for money? ____________

Why? ____

Caught in the Spider's Web!

(Interdependence)

When people specialize in the kind of work they do, they depend more and more on each other to provide the goods and services they want. The more people specialize, the more **INTERDEPENDENT** they become.

DIRECTIONS:

1. Draw "spider's web" lines between any of the workers below who must depend on each other to provide goods or services.

Doctor

Policeman **Plumber**

Farmer

Mailman **Shoe Maker**

Car Maker

2. On the back create another spider's web of interdependence using different kinds of jobs and workers.

Working More Efficiently
(Productivity)

Productivity measures how efficiently we use our productive resources to produce goods and services. We can increase productivity by using:

1. More capital (tools, machinery, etc.) — C
2. Better Technology — T
3. Education and Training — E
4. Specialization — S

How can productivity be increased in the situations below? Put C, T, E, or S in the blanks to represent the four ways above. Note: Some situations have more than one way to increase productivity.

1. A farmer plants a field with a hoe. ________
2. Five shoemakers each make complete pairs of shoes using simple hand tools. ________
3. A dentist meets patients, makes appointments, cleans teeth, and does fillings. ________
4. It takes a long time for 5 workers to unload boxes from a truck. ________
5. Painters paint only 1 house every 2 weeks. ________
6. College students make many mistakes and take a long time doing difficult math problems. ________
7. Workers in a computer repair show are not fixing many computers each day. ________
8. Secretaries do not type many pages each day and make many mistakes. ________
9. It takes a long time for mechanics in a repair shop to fix cars. ________
10. Three boys each have their own lawn business. They use push mowers, rakes, and small weeding tools. ________

Lemonade Stand

(Profit)

Jerry and Sam want to earn a **PROFIT** by selling lemonade. In the chart below are costs for the ingredients to make one glass of lemonade.

Costs of Ingredients

Lemon	5¢
Sugar	2¢
Paper Cup	2¢

Answer the questions below. **Show your work!**

1. How much does it cost to produce one glass of lemonade?

2. If the boys sell each glass for a price of 20¢, how much profit will they make?

3. If they sell each glass for a price of 25¢, how much profit will they make?

4. If they charge 20¢ and sell 8 glasses, how much profit will they make altogether? If they sell 10 glasses?

5. What are some *other* possible costs of making and selling lemonade that the boys should consider?

6. What are some capital resources that the boys need for their business that they will probably borrow from their families?

The Birdhouse Business

(Profit)

Jeff plans to make and sell birdhouses this summer. Below is the cost of materials for each birdhouse.

Wood	$1.75
Paint	.25
Screws	.25

He knows he can make 10 birdhouses each week, and that he can sell them for $6.00 each.

1. What is the cost of materials for each birdhouse? ________
2. How much profit will he make on the sale of *one* birdhouse? ________
3. How much profit will he make each week by selling all 10 birdhouses? ________

Jeff's uncle offers him a summer job mowing 10 lawns a week. Jeff will earn $40.00 each week for his wages.

4. How much more money would Jeff earn mowing lawns each week instead of making birdhouses? ________
5. Given this new information, is Jeff still making a "profit" by making birdhouses? Why or why not? ____

    ____
6. What is Jeff's **opportunity** cost if he chooses to mow lawns? ________
7. What is Jeff's **opportunity** cost if he chooses to make birdhouses? ________
8. If Jeff chooses to make birdhouses, is he making an unwise decision? Why or why not? ____

    ____

How Many Cookies?

(Demand)

Mrs. Mill's class wants to bake and sell cookies. They conduct a market survey to determine the **DEMAND** for cookies. The market survey shows how many cookies consumers would buy at various prices.

Market Survey
(Demand)

Price per Cookie	Quantity of Cookies Consumers would buy	Revenues from Sales
.50	50	$25.00
.40	200	________
.30	400	________
.20	700	________
.10	900	________

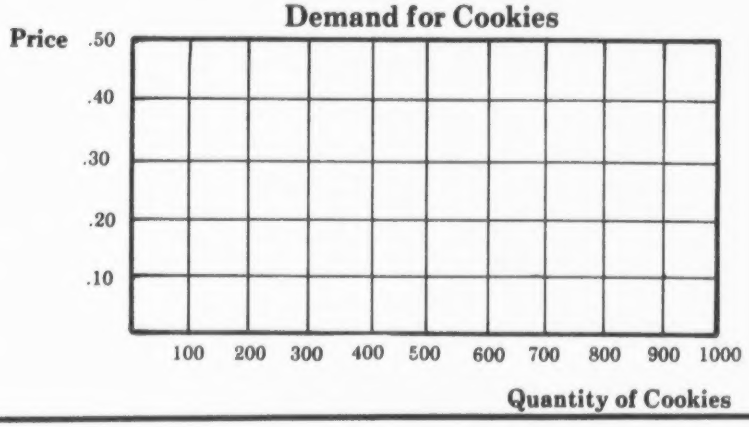
1. In the blanks above, compute the revenues that would be earned at each price and quantity.

2. If the class wants to sell the *most* cookies, which price above should they charge? ________________

3. If the class wants to earn the most *revenues*, which price should it charge? ________________

4. Which price would *you* charge? ________________ Why? ________________
____

5. Graph the results of your market survey below. Connect the points.



How Many Cookies?

(Supply)

Mrs. Mill's class is still trying to figure out how many cookies to produce. Their market survey told them about demand, but now they need to analyze their **SUPPLY**. Some students do not want to make many cookies, and will do so only if they are paid higher wages. The class would, therefore, have to charge higher cookie prices to cover any increases in production. The class supply schedule is given below.

Supply

Price per Cookie	Quantity of Cookies Class would Supply
.50	1000
.40	700
.30	400
.20	250
.10	100

1. At what price would the class supply the most cookies? __________

   The least amount of cookies? __________

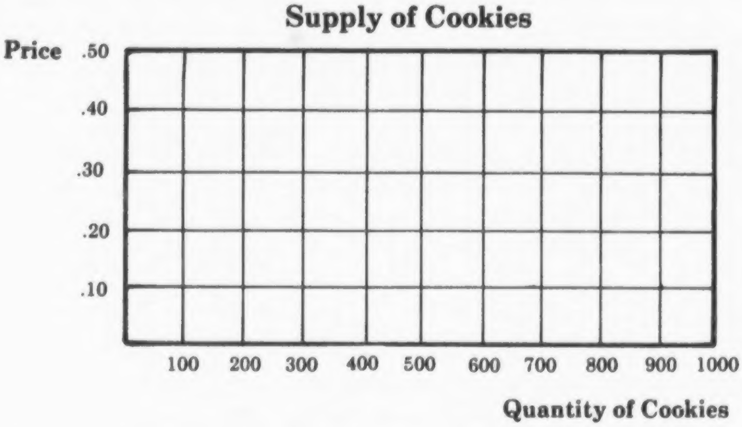
2. As the cookie price goes up, what happens to the quantity supplied?

   ______________ Why? ____

3. As the cookie price goes down, what happens to the quantity supplied?

   ______________ Why? ____

Graph the class supply schedule below.



M·I·N·I ME ECONOMY

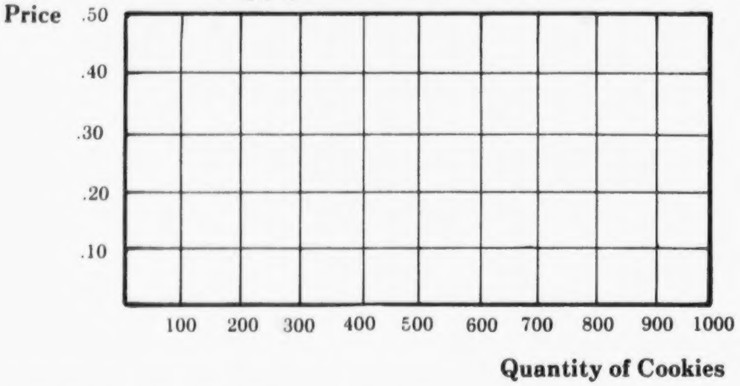
How Many Cookies?

(Supply and Demand)

Mrs. Mill's class is finally ready to decide how many cookies to produce. Graph the demand and supply schedules on the graph below.

Demand		**Supply**	
Price per Cookie	**Quantity of Cookies consumers would buy**	**Price per Cookie**	**Quantity of Cookies class would sell**
.50	50	.50	1000
.40	200	.40	700
.30	400	.30	400
.20	700	.20	250
.10	900	.10	100

Supply and Demand for Cookies



1. At what price is the quantity consumers would buy and the quantity the class would sell the same? ________________

2. The price in the above question is called the **market price**. At prices above the market price, why would there be a *surplus* of cookies? (Use the graph to help you.) ________________________________

3. At prices below the market price, why would there be a *shortage* of cookies? ________________________________

4. What price would *you* charge? ________________ Why? ________________

What Would Happen?

(Price Changes)

Many things cause prices to change. If other things remain the same, what do you think would happen to the price of the goods listed below if these events took place? Would the price go **up** or **down**? Write your answer in the blank.

	Item	Event	Up or Down?
1.	Corn	almost no rain falls on U.S. corn crops	________
2.	Stuffed "Teddy Bears"	"Puppy dogs" become the most popular stuffed animal	________
3.	Soccer balls	Many boys and girls are now learning to play soccer	________
4.	Shoes	Workers who make shoes get large wage increases	________
5.	Calculators	Calculator makers invent a new machine that produces twice as many calculators in one hour than before	________
6.	Cigarettes	People discover that smoking causes cancer	________
7.	Gasoline	The price of crude oil falls dramatically	________
8.	Baby cribs	There is a large increase in the number of babies born	________
9.	Tomatoes	Many farmers decide to begin to grow tomatoes	________

Answers for Appendix A Worksheets

The answer for most of the questions on the worksheets in Appendix A are given below. Questions that have very easy or obvious answers are omitted.

Which Things Are Scarce: 1) Scarce — hamburgers, gold, pencils, buttons, a teacher's services, trees, nurses's services, water, shirts, air in space, T.V. repair, grapes. Not scarce — saltwater at beach, air you are breathing, sand in desert. 2) In normal situations gold is probably the most scarce, and therefore, the most valuable. However, for the astronaut in space, air is very scarce and is more valuable than gold. Water could also be considered more valuable than gold, since it is necessary for life. However, since water is more plentiful (less scarce), it costs less than gold. 3) The price of a good or servie is an accurate indicator of its relative scarcity.

Goods or Services: 2) Yes. At a zero price there are not enough goods and services available to satisfy everyone's wants for them. 3) Individuals/businesses produce them.

Land, Labor, or Capital: 2) Yes. At a zero price, there are not enough productive resources to satisfy the wants of businesses/individuals. Productive resources are limited, whereas, the desire to use them is virtually unlimited.

Who Provides the Services? 2) From taxes. 3) Teaching, garbage collection, possibly police, since there are private security guard agencies.

Services — Public or Private? National Defense is something that could not be provided by private businesses because one cannot exclude individuals from "consuming" national defense. Certain individuals would let others pay and receive the benefits themselves.

Choices Have Costs: 2) The opportunity cost is your second choice 3) individuals have different tastes and values 4) No, their **second** choice might be different 5) Reading the book. No, since she cannot do both at the same time. By playing a game, she gives up the opportunity to read **or** bake a cake. Only one of these can be her opportunity cost.

Who Benefits? In 1, 2, and 3, **both** individuals benefit. 5) when someone buys an article of clothing, **both** the buyer and the seller/producer benefit. It does not matter where the clothing was made. The buyer is happy to get the clothing; the seller is glad to get money in return.

Money: 2) Paper, silver, and gold. They all fit the characteristics of money very well. Paper is best, **if** governments do not indulge in printing too much of it (i.e., inflation). Unfortunately this has often been the case 3) Pebbles, since they are not at all scarce.

Caught in the Spider's Web: The spider's web lines can be drawn between any of the workers, since all must depend on each other in some way.

Working More Efficiently: Students will discover a variety of ways to improve productivity in each of these situations.

Lemonade Stand: 1) .09 2) .11 3) .16 4) .88, $1.10 5) Value of their time, ice, advertising, table, materials for sign, etc. 6) Table, chair, pencils/pens for making signs, pitchers, stirring spoons, etc.

The Birdhouse Business: 1) $2.25 2) $3.75 3) $37.50 4) $2.50 5) He is still making an *accounting profit* of $2.50. However, since he will be losing money by *not* mowing lawns, he is not making an **economic profit**. An accounting profit does not consider the value of opportunities given up (i.e. *opportunity cost)* 6) $37.50, the value of his next best alternative 7) $40.00, the value of his next best alternative; 8) No, since there are other factors which will affect his decision besides cost. He may hate mowing lawns and enjoy making birdhouses!

How Many Cookies?: Demand: 2) .10 3) .20 4) Given only this information, probably .20. However, this only looks at the *demand* side of the issue. Considering *supply* could change things. See the next two worksheets!

How Many Cookies?: Supply: 1) .50, .10 2) The quantity supplied increases. At higher prices, sellers will supply more, since the higher prices will cover any increase in cost 3) The quantity supplied decreases. The lower price will not cover the costs of producing greater quantities. Therefore, businesses will reduce the quantity supplied.

How Many Cookies?: Supply and Demand: 1) .30 2) At prices above the market price, the quantity supplied is greater than the quantity demanded 3) At prices below the market price, the quantity demanded is greater than the quantity supplied 4) .30. This is the price that equalizes the amount buyers want to buy and the amoung sellers want to sell.

What Would Happen?: 1) up 2) down 3) up 4) up 5) down 6) down (remember, we are assuming that nothing else changes except the event given 7) down 8) up 9) down.

Appendix B

Economic Education Curriculum Materials for Teaching Specific Concepts

This Appendix lists basic economic concepts that can be taught to elementary students. It also lists various economic education curriculum materials for teaching these concepts. Each of these materials is listed in the bibliography, which gives a brief description of the materials and tells where they can be obtained.

Economic Education Curriculum Materials to Use with the Mini-Economy

CONCEPTS	PRIMARY MATERIALS	INTERMEDIATE MATERIALS
Scarcity and the Basic Economic Problem		
A. Scarcity	Winnie The Pooh #1: The Value of Things MCG: Primary Teaching Activities (Green) Elementary Economist: Scarcity Children in the Marketplace, Lesson 1	Understanding Economics, Chapter 6 MCG: Using Economics in Social Studies Methods (Purple) MCG: Intermediate Teaching Strategies (Gold) Elementary Economist: Scarcity Children in the Marketplace, Lesson 1
B. Productive Resources	The Book Company, Lessons 3,4,5,6 MCG: Primary Teaching Activities (Green) Elementary Economist: Resources in the Marketplace Lifegames: Section 3 Oak Lane Tales: Welcome to Oak Lane Children in the Marketplace, Lesson 2 Exploring the Community Marketplace	The Book Company, Lessons 3,4,5,6 Exploring the Community Marketplace Disney's Wide World of Economics and Enterprise, #1 and #2 Elementary Economist: Resources in the Marketplace Children in the Marketplace, Lesson 2 MCG: Using Economics in Social Studies Methods (Purple)
C. Economic Systems	Oak Lane Tales: Competition You Choose	Kingdon of Mocha, Return to Mocha MCG: Intermediate Teaching Strategies (Gold), page 45
Opportunity Cost		
A. Choice/Opportunity Cost	Winnie the Pooh #2, What Does It Cost? Common Cents: Choices Elementary Economist: Opportunity Cost	Trade-Offs #1, #2, #3 Elementary Economist: Opportunity Cost Give and Take #1 and #2 MCG: Using Economics in Social Studies Methods (Purple) Understanding Economics, Chapter 7

CONCEPTS	PRIMARY MATERIALS	INTERMEDIATE MATERIALS
Production and Productivity		
A. Jobs and Production	Elementary Economist: Employment Common Cents: Jobs Winnie The Pooh #4: The Job Is Yours Elementary Economist: Supply, Production Captain Silas Lifegames: Section 2 Exploring the Community Marketplace	Elementary Economist: Employment Disney's Wide World of Economics and Enterprise #1-5 Business In My Town Elementary Economist: Supply, Production Exploring the Community Marketplace
B. Increasing Productivity	The Man Who Made Spinning Tips Oak Lane Tales: Productivity You Choose	Trade-Offs #5: Less and More
1. Specialization and Interdependence	The Book Company, Lesson 8 Common Cents: Production Elementary Economist: Production and Specialization MCG: Primary Teaching Activities (Green) The Man Who Made Spinning Tops	The Book Company, Lesson 8 Trade-Offs #6: Working Together MCG: Using Economics in Social Studies (Purple) Elementary Economist: Production and Specialization The Man Who Made Spinning Tops
2. Capital and Technology	Oak Lane Tales: Productivity Elementary Economist: Productivity and Capital Goods The Book Company, Lessons 5, 13	Return to Mocha Elementary Economist: Productivity and Capital Goods Trade-Offs #7: Does It Pay? The Book Company, Lessons 5, 13
3. Money and Banking	Fisherman Who Needed A Knife Oak Lane Tales: The Bank Winnie The Pooh #5: You Can Bank on It Common Cents: Trading Common Cents: Banking Common Cents: How Money Works Lifegames: Section 4	Fisherman Who Needed A Knife Once Upon A Dime Trade-Offs #9: Why Money? Disney's Wide World of Economics and Enterprise #4
4. Education and Training	Lifegames: Section 3, #18	Trade-Offs #8: Learning and Earning Give and Take #6: A Key to Productivity

CONCEPTS	PRIMARY MATERIALS	INTERMEDIATE MATERIALS
Price Systems		
A. Circular Flow Model of a Market Economy		MCG: Intermediate Teaching Strategies (Gold)
B. Supply and Demand	Common Cents: Prices 3 Elementary Economist Issues: Demand, Supply, Market Prices Children in the Marketplace, Lesson 5	Trade-Offs #10, #11, #12 Children in the Marketplace, Lesson 5 MCG: Teaching Strategies (Gold) MCG: Economics in Social Studies Method (Purple) Kingdom of Mocha, Return to Mocha Understanding Economics, Chapters 8, 9 3 Elementary Economist Issues: Demand, Supply, Market Prices
C. Profit	The Book Company, Lesson 25 Common Cents: Prices Oak Lane Tales: #1 Welcome to Oak Lane, #5 Productivity, and #7 Risk and Reward You Choose	The Book Company, Lesson 25 Elementary Economist: Wages and Profit Disney's Wide World of Enterprise #1 Business in My Town
D. Competition	Oak Lane Tales: Competition Common Cents: Prices Elementary Economist: Competition in the Marketplace	Elementary Economist: Competition in the Marketplace Return to Mocha
Government		
A. Basic Functions	Oak Lane Tales: Taxes Elementary Economist: Public Goods and Services MCG: Primary Teaching Activities (Green)	Trade-Offs #14, #15 Elementary Economist: Public Goods and Services
Entrepreneur		
A. Key Role	Winnie the Pooh #4: The Job is Yours Elementary Economist: Entrepreneurship Oak Lane Tales: Competition Oak Lane Tales: Risk and Reward Exploring the Community Marketplace, Lesson 22	Disney's Wide World Of Enterprise #1-5 Elementary Economist: Entrepreneurship Exploring the Community Marketplace, Lesson 22

Appendix C

Making Your Mini-Economy More Effective

This Appendix addresses certain difficulties that teachers may encounter while operating a mini-economy. Obviously, all of the suggestions are not appropriate for every teaching situation. However, most teachers should be able to use some of these suggestions to help make their mini-economics more effective.

Making Your Mini-Economy More Effective

1. Checking Accounts

"My students keep overdrawing their checking accounts."

- Use checking account forms that require students to compute checking account balances on the form.
- Take away the checking privileges of violaters.
- Levy fines or fees for overdrawn checks.
- Levy other punishments (miss next store auction, garnish wages until overdraft is paid, etc.).
- Give a monthly bonus to students who do **not** overdraw accounts. Let the student bankers keep track of this.

"There are always discrepancies between the official bank statements and the students' own checking account records. It takes me forever to figure out who is at fault."

- Use a checking or savings account form that requires students to compute **on the form.**
- Hire a student "accountant" to determine who made the mistake. Encourage students to operate their own accounting businesses.
- Require the student who was at fault to pay any accounting fees.
- Require student bankers to balance statements periodically, perhaps once every two or three weeks.
- Have several bankers, each responsible for fewer clients. Also, have banker responsible for the **same** clients each week.

2. Behavior Management

"My students are not responding to the behavior management technique of paying for desired behavior. They do not seem to care anymore."

- Keep your money rewards big enough. If the other ways to earn money are more lucrative, students will not respond well to your behavior management incentives.
- Do not use the mini-economy for behavior management at all. Instead, focus more on economics. For example, students can earn money from jobs, or from running their own businesses.

- Do your students really value what they can buy with the money they earn? If not, they will not be very motivated to earn money in any way.
- Keep a class chart of behavior rewards and fines. Allow for class input in determining which rewards and fines will be used, and their money values.
- Keep your behavior management goals attainable. This may be especially important for lower ability students. For example, instead of rewarding students if **all** assignments are completed, consider rewarding students for **each** assignment completed. In this way, even students who turn in only a few assignments will get something and these students will be encouraged to complete even more assignments in the future.
- In some situations, fines can be more effective than rewards. However, fines must be used carefully.

- Do not fine too heavily. Teachers who levy fines sometimes get carried away. Students with a heavy load of fines will sometimes give up trying to earn money. Let them "erase the slate clean" by missing recess, staying after school, etc. Giving them a chance to start over again can be very motivating.

"One parent expressed concern that her child should not be paid for good behavior or completed assignments. The parent believed students should be well behaved and should complete assignments without rewards."

- Be prepared beforehand to deal with this issue. Either omit this aspect of behavior management from your mini-economy or have a well reasoned response for concerned parents. See Chapter 4, page 39 in *The Mini-Economy: Integrating Economics Into The Elementary Curriculum.*
- If only one or a few parents raises this objection, let those children earn money in other ways. They could have special jobs or could start a classroom business.

3. **Auctions and Stores**

"My stores and auctions are so confusing that they take up a lot of class time."

- Make good use of student helpers to collect money, take orders, issue items, etc.
- Use specific auction forms to organize the auction process.
- Establish auction rules to define acceptable behavior and to establish an orderly auction process.
- Limit stores or auctions to a specific time period, regardless of what gets sold. Students will learn to use this scarce time wisely.
- Do not let any students remain idle. For example, if only one half of the students can shop at the store at one time, have the other half going to the bank, buying insurance, doing seat work, etc.

- Have store or auction time during rainy day recesses when the class must stay in anyway.

"I never seem to have enough items to sell at my store or auction. I am always running around trying to find things."

- Ask colleagues for items to sell. Teachers have all kinds of "treasures" hidden within their classrooms.
- Have your **students** bring one to three items from home to sell. Of course, get permission from parents.
- Sell more classroom **privileges**, and fewer items.
- Do not hold auctions or stores too frequently. For upper elementary students, every other week is sufficient. Many teachers have even longer periods of time between auctions.
- In a class store, do not price the items too low! Get a general idea of how much money your average students has and price items accordingly. If you set prices too low (below a market clearing price), you will be sold out in no time. Remember the Law of Demand — to sell less, simply raise prices.
- Local businesses will often contribute items.
- Do not forget — students will buy **anything**. Seemingly useless items (used carbon paper from dittos, etc.) will have value to some students.

"Some of my students are hoarding so much money that I am running out. Also, I am afraid these students will buy everything in future stores and auctions."

- Issue some higher denomination bills. Have your hoarders trade in their many lower denomination bills for the new ones.
- Require hoarders to deposit some of their money into a checking or savings account.
- Discover which items and privileges hoarders really like and sell these things each store or auction session. You can usually tempt your hoarders into buying something.
- Offer these special items and privileges at an *auction*, instead of a store. In an auction, students will frequently bid up prices to levels that will absorb much of the hoarded money. The amount of money that students have is really not the crucial factor in an auction. More money simply means higher *prices* for the items and privileges you decide to sell.
- Do not worry if several students have amassed fortunes that enable them to dominate a particular auction or store session. That is their reward for 1) being diligent enough to earn money, and 2) forgoing present consumption in order to save for future consumption. However, if their hoarding is soaking up your money supply, issue higher denomination bills or require hoarders to open a checking or savings account.

4. Implementing Your Mini-Economy

"There are just too many details for me to handle. I am getting bogged down."

- It is **very** important that you delegate as much responsibility as possible to students. This may be difficult at first, but it is essential for survival in the mini-economy. It is also good for students.
- Do not expand your mini-economy too quickly. Add mini-economy activities only after your students have mastered previous details.
- Think of ways to **simplify** certain procedures. For example, pay salaries every week instead of every day. Or, do most or all of your mini-economy activities during one specific time period each week.
- Get another teacher involved. Perhaps she could operate the bank, and you could operate the store or auction. In other words, practice some division of labor.
- Ask a parent volunteer or teacher's aide to help.

"The mini-economy activities are using too much instructional time."

- Do most mini-economy activities during times of the school day that are typically not very productive, such as when buses are coming and going, during indoor recess, or late Friday afternoon.
- Do not forget that economics *is* a part of the social studies curriculum.
- Consider that students will be applying many math, communication, language arts, and fine arts skills while participating in mini-economy activities.
- Set time limits on mini-economy activities. For example, limit the auction to 25 minutes. Use a timer if necessary. The students will learn not to waste scarce mini-economy time.

"My students are losing interest in the mini-economy. It is just not like it used to be."

- Make sure that your students truly value the items and privileges that can be purchased in the store or auction.
- Limit your mini-economy to a specific period of time, say 4-8 weeks.
- Let students apply for new jobs, or raise the pay of existing jobs.
- Try adding a new mini-economy activity that is interesting to students, but not too difficult to implement. Real estate and insurance are two possibilities.
- Have bills or fees that students **must** pay each month, such as rent, utilities, doctor's fees, etc. This can increase interest in a hurry.
- Invite guest speakers to speak about their jobs and other economic topics.

- Go on a field trip that relates to your mini-economy activities (visit a factory, etc.)
- Use some motivating audio visual economic education curriculum materials, such as *Winnie the Pooh and the Value of Things, Trade-Offs, Give and Take, Oak Lane Tales,* or *Common Cents.*
- Let your students start their own classroom businesses. Initially this will take some planning and coordination on your part, but the payoff is worth it — students love to operate their own businesses. Also, classroom businesses can be used to teach many economic concepts.

"My students keep bringing expensive toys and items to trade or sell in their classroom businesses."

- Have a general rule not allowing students to bring expensive items. You could set a monetary limit for these items or any "raw materials" used to produce a product.
- Have students pay you play money for items and raw materials brought from home. This makes students aware of some of the costs involved in producing a product.
- Encourage students to operate businesses that involve **labor and talent,** and a minimum of financial investment in raw materials. This also encourages creativity.

5. Administrators and Parents

"My administrators are questioning my mini-economy activities."

- Keep the lines of communication open with administrators. Do they really know what you are doing in your mini-economy? Are you reporting the positive feedback you receive from parents?
- Be prepared to explain why mini-economy activities are educationally sound. You should make a list of the educational goals and objectives of your mini-economy activities. (See Chapter 1 in *The Mini-Economy: Integrating Economics into the Elementary Curriculum.)*
- Be sure to use mini-economy activities to apply the basic skills learned in other subjects.
- Invite administrators to visit your classroom to view mini-economy activities first hand.
- Let your administrator know that you are using your mini-economy to teach basic economics concepts, which are part of the social studies curriculum. Avoid using the mini-economy exclusively as a behavior management tool.
- Be enthusiastic and positive about your mini-economy. Most administrators appreciate an enthusiastic teacher.

"Some of the parents are concerned about my mini-economy activities."

- Communicate with parents. Let them know what you are doing and why.
- Design your mini-economy so that any students who put forth reasonable effort can succeed. The mini-economy should not put undue pressure on any student.
- Be prepared to justify your using the mini-economy as a behavior management tool.
- Invite parents to visit some mini-economy activities. Ask them to share their work experiences with the class.
- Be prepared to explain why the mini-economy is an educationally sound instructional technique.
- Let parents know that economics is part of the social studies curriculum.

6. Stealing

"Stealing continues to be a problem in my mini-economy"

- Require play money to be kept in an envelope or wallet.
- Encourage or require students to keep their money in a savings or checking account.
- Do not use currency at all. Use only checks in your mini-economy.
- Encourage and expect honest behavior. Reward honesty with praise or small monetary rewards.
- Have stiff penalties for stealing. The class can be involved in setting penalties. One of the most effective penalties is not allowing a student to participate in the mini-economy for a period of time.
- Choose honest, responsible, and competent students for bankers.

Appendix D

Indiana Proficiency Guidelines in Economics

The recently published *Indiana Curriculum Proficiency Guide* was written to provide support and assistance to local school corporations in their efforts to develop a comprehensive K-12 curriculum. Appendix D lists the specific economics proficiencies for grades K-6 which are found in the Social Studies portion of the *Guide*, and lists sample indicators for each proficiency. These indicators are not inclusive, but are samples of the kinds of learning that would indicate an understanding of the proficiency.

The proficiencies reflect current research in the field of economics and the experiences of many Indiana educators. Although the proficiencies should not be viewed as a state-mandated program for instruction, they should be useful as a practical tool for curriculum planning in economics at the local school corporation level.

Specific suggestions for modifying these proficiencies are welcome.

PROFICIENCY	SAMPLE INDICATORS
Kindergarten	
Explain how people meet basic economic needs.	A. Explain why all people need food, shelter, and clothing.
	B. Describe how the family obtains food, clothing, and shelter.
	C. Explain how people purchase the things that they need and want.
	D. Describe the economic and other activities that family members do together.
Grade 1	
Explain how people work and use resources to fulfill their economic wants.	A. Explore the ways that people obtain shelter, food, clothing, recreation, and transportation.
	B. Explore the kinds of work that school personnel and family members do and how that work benefits everyone.
	C. Give examples of how students and families acquire money directly through work or through other means, e.g., allowances, etc.
	D. Identify some of the ways that people spend money and suggest reasons why people save money.
	E. Suggest reasons why it is not possible for people to have all the things that they want (scarcity).
Grade 2	
Describe how people depend on each other to supply economic goods and services.	A. Identify people who provide goods and services to the community, e.g., school workers, doctors, firefighters, police officers, factory workers, storekeepers, farmers, etc.
	B. Explore the education or training needed for a job or profession.

C. Give examples of how people earn income, e.g., wages, salary, rent, profit.

D. Explain how family members use their income.

E. Identify family members who are producers, consumers, and both producers and consumers.

F. Explain how natural and other resources are used to satisfy the economic wants of people.

G. Give examples of how people make choices about using goods, services, and resources. (Since resources, goods, and services are limited, people must make decisions about what they will buy, make or do for themselves and what things they will do without).

Grade 3

Explain how people make choices about using goods, services, and resources to satisfy their economic wants.

A. Describe how people work in jobs to provide goods and services in the community.

B. Explain why people specialize in different jobs.

C. Identify the economic resources (natural resources, human resources manmade resources) in the community.

D. Give examples of how people are both producers and consumers of goods and services.

E. Give examples of how economic resources in the home, school, and community are limited (scarcity) and how people must make choices about how to use resources.

F. Identify the opportunity cost (what you have to give up to get something you want) of various choices.

Grade 4

Compare the characteristics of Indiana's economic system in the past and present and predict possible changes.

A. Identify Indiana's manufactured and agricultural products.

B. Explain how Indiana's products have changed over a period of time.

C. Cite examples of economic interdependence within and among regions of Indiana.

D. Compare and contrast manufactured and agricultural products of Indiana with those of states in different regions.

E. Describe the importance of Indiana's products in world trade.

F. Examine Indiana's economic relationships to other states and regions of the United States and the world.

G. Examine the changes in the state's production and distribution of food.

H. Examine and explain the change from an agricultural to a manufacturing to a service-based Indiana economy.

I. Evaluate the changes in the quantity and quality of government-provided goods and services.

Grade 5

Describe the resources and market relationships that influence the way people produce goods and services and earn a living in different parts of the United States.

A. Explain how economic decisions are made in a market economy by demonstrating the relationship among factors such as price, supply, and demand.

B. Give evidence that shows how regions of the United States are economically connected (interdependent) with other regions.

C. Explain how interdependence is a result of specialization and how specialization is related to the production of goods and services.

D. Explain why people specialize in different careers and occupations.

E. Identify natural resources and occupations found in the regions of the United States.

Grade 6

Demonstrate the influence of physical and cultural factors upon the economic systems found in countries of the Western World.

A. Explain how physical geography, specialization, and trade influence the ways people earn income in various countries of the Western World.

B. Explore the ways different countries of the Western World answer the basic economic questions of **what** to produce, **how** to produce, **for whom** to produce.

C. Compare and contrast how education and technology influence the economic characteristics of various countries of the Western World.

D. Describe the level and sources of income in the major countries of the Western World.

E. Explain how social institutions, such as religions, influence the economic systems of countries in the Western World.

F. Describe the roles of government in a market system and a planned economy found in countries of the Western World.

G. Identify situations in which the actions of consumers and/or producers are helpful or harmful to others (inside and outside a country) who are not directly involved in the consumption or production of a product.

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